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Lectures on

Monetary Economy

2002 - 2003

Introduction

Monetary economics is a branch of the science of Political Economy, dealing with the monetary aspects of the economic process, internally as well as internationally. These are aspects relative to the uses and the circulation of money, in their dynamic interaction with the real aspects of the economic activity of the society.

The study of this branch presupposes a thorough knowledge of the principles of Political Economy as presented in the economic course of the first year of our Faculty, namely, political economy as a science, with its scope and method; the economic process in the different historical forms of society, especially in the capitalist society, with its rise and development during the last five centuries, to dominate actually the international economic scenery. In terms of economic theories, the study of monetary economics presupposes an adequate knowledge of the theory of production as a process of production and reproduction, the theory of distribution, the theory of value and prices, the theory `of consumption and the theory of capitalist development, where money reaches its full- fledged development.

Inspired by these theories, it might be useful to start with an overall scheme showing how the economic process is taking place in the daily life of the capitalist society, in order to see where and how money is used and the functions it fulfills whenever it is used.

Then, we can proceed towards a definition of money as an economic phenomenon related to the exchange economy. As such, it is **historical**, in the sense that it has its birth and its development with the different types of exchange economy, especially along the development of the capitalist economy. Its definition must be conceived, hence, **historically**. But, as we are dealing with the **theories** relative to the monetary aspects of the economic life, money should be defined **theoretically**, in intimate relation with the basic law of operation of the exchange economy, i.e., the law of value and prices acting through the market mechanism.

Moreover, as money knows its most extensive use and most dynamic role within the capitalist economy, its circulation in such an economy takes a specific form which constitutes what is called the **monetary system.** Such

monetary system undergoes changes through the different stages of capitalist development.

Furthermore, in a capitalist economy, with the extension of the scope of monetary circulation and the increasing division of labour, emerge, through the transformation of merchants or goldsmiths, some capitalist enterprises, seeking monetary profit, and get specialized, over time, in money creation and the commerce of money. These are the **monetary institutions** among which **banks** are the most important.

With the existence of money, having penetrated all aspects of, not only the economic but also, the social life, and the existence of institutions dealing mainly with money and dealing with other economic institutions (such as productive units) through money, arises **the question** of whether and how far the existence of money and its circulation affect the economic decisions taken by the different economic agents: investors, producers, workers, merchants and consumers; affecting consequently the level and the pattern of the national economic activity, i.e., the functioning of the whole national economy. With respect to this question, different

theories, attempting to explain how the national economy functions with the circulation of money, were elaborated through the history of economic thought during the capitalist era. At least some of these theories have to be discussed.

If the circulation of money does affect the level and the pattern of the society's economic activity and if the state plays a certain role in the society's economic life, which has been always the case of the capitalist state (albeit with different patterns and scopes at the different stages of capitalist development), the state may seek to achieve economic (or other) objectives through the utilization of some **monetary tools,** directly or indirectly (e.g., increasing investment by lowering the rate of interest, that is the price of borrowing money). If the state does so, its action belongs to its **economic policy,** through one of its components, that is the **monetary policy.**

Accordingly, a **balanced** theoretical study of the monetary economy should gradually embrace, successively, the definition of money, monetary institutions, money and the functioning of the national economy and the monetary plicy. Each of these topics will be discussed in one of four chapters.

But, to help integrating the monetary aspects of the economic activity with its real aspects, we suggest to start with a preliminary chapter presenting, schematically, a comprehensive vision of how the economic process is taking place in the daily life of the capitalist society.

Consequently, we suggest that our discussion of the monetary problems proceeds as follows:

- **Preliminary chapter:** the economic process in the daily life of the capitalist society: the place and role of money.
- **Chapter I** : the definition of money.
- **Chapter II** : the monetary institutions.
- **ChapterIII** : money and the functioning of the capitalist economy.
- **Chapter IV** : The monetary policy.

Preliminary Chapter

The Economic Process in the daily life of the capitalist society[1]

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(1) On a theoretical vision of this process, see, M. DOWIDAR, Principles of Political economy, Vol. II, The Monetary Economy, El halaby, Beirut, 2001 (in arabic).

Chapter One

The Definition of Money

A phenomenon can be properly defined only through its scientific investigation, in its existence, its action, its development and, hence, in the possibility of its disappearance. Accordingly, to define money, we should study it historically, theoretically and in its specific mode of circulation in the capitalist economy.

But, still, we can approach money by a brief and temporary definition. Just to start with

- **A current definition:** money is anything having a customary or conventional use as a medium of exchange or a measure of value.

Possible comments on the definition:

- it does not tell us anything about the **origin** of money.

- it only **hints** at the **social** nature of money as an instrument: by saying "customary or conventional".

- it defines money by some (and not all) of its **functions:** a medium of exchange, a measure of value.

- it puts the function of money as a "medium of exchange" **before** its function as a "measure of value" (!) which of them presupposes the other?

- only with respect to the 1st function, it **hints** at the **exchange** economy, i.e., it does not express, openly, that money is related, historically, to the exchange economy, and only to that economy.

Another definition: Money is a social instrument, invented historically in relation to exchange economy, generally accepted in the society, to effectuate different functions that facilitate and stimulate the exchange of commodities, material as well as services.

- A social instrument, invented by the society through a long social practice (i.e., in social praxis).

- Has its history:

- related to a certain stage: that of commodity production (subsistence economy - commodity production -

simple commodity production, capitalist commodity production).

- created through a certain historical process: a process of social selection, with specific differences between societies.

- has its social development through transformations: with specific modes of circulation in the different exchange economies, and especially the capitalist one.

A - Money, historically:

- Origin of money: in exchange economy - the circulation of commodities - exchange in real terms - **barter** (truck).

- From the **inconveniences of barter** money emerges: the commodity money.

- The tendency towards a specific commodity money: precious metals (silver and gold).

- the **metallic money:** to mint money - the metal, its finness (purity) - weighed metallic money (bars) - counted metallic money (coins) - state intervention: to guarantee weight & purity of coins (stamp) - nominal and real value of coins - fiat metallic money - legal tender and forced course (compulsory circulation) of metallic money - with the coins

the currency takes a name and prices appear - good money and light money (Gresham's Law - ElMakrezy).

- the expansion of commodity production, hence exchange and the need for additional quantities of money - the relative scarcity of precious metals in nature - the historical necessity for more money with another form (already prefiguring in social practice).

- capitalist production - rapid expansion of commodity exchange - the need for more money - the rapid development of metallic money in internal and external transactions - limited by the scarcity of precious metals.

- Merchants, goldsmiths and banks - **the paper money** - on the occasion of the deposit of metallic money - a paper certificate - its circulation in exchange - **the representative paper money** - against the total amount of deposits in metallic money the possibility of lending money in the form of **banknotes**: the occasion is the operation of **discounting the commercial bills by a bank** in the interest of the bill holder - the **fiduciary paper money -** the convertibility of the banknote into metal - the intervention of the state - the banknote with legal tender and forced course (compulsory

circulating) - the circulation of both metallic and paper money - token money.

- The deposit - money (credit - money) - (scriptural money) -

- The real deposit (metallic or paper money) + current account.

- the credit deposit + current account.

- the cheque as the instrument of circulating the credit - money (bank money) - the transformation towards the electronic means.

- the limits on the bank to create credit money: the bank between the profit temptation and the security constraint - the cash reserve.

B - Money, theoretically:

- Originally a commodity - the exchange of commodities - barter - commodity money.

- the value of the commodity - use value, value, value in exchange, value and relative value - the evolution from the elementary or accidental form of value → the expanded form of value → the general form of value → the money form: the

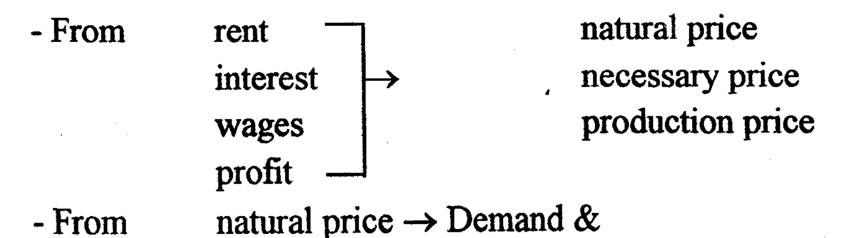
general equivalence of value. - from value to money.

- the monetary expression of the exchange value of the commodity is **<u>its price</u>** (price as a monetary phenomenon).

- Hence, from value to money, and from money to price.

Quantitatively:

- value, minus value of labour power (wages), → surphus (rent, interest, profit) → the 4 → natural price.



3 possibilities to arrive at the **<u>market price.</u>**

(2) <u>The functions of Money:</u>

- Three <u>(primary) functions,</u> in order: measure of value - medium of exchange - store (stock) of value.

- from each, <u>two derived functions</u>

- price standard & unit of account.

- means of credit & means of payment (an exchange act whose second part is delayed over time).
- means of saving (hoarding).
- supplies capital (as a social phenomenon) with the form primary to the cycle of capital as intermediary to the cycle of production.

- Measure of value: first basic function - renders commodities comparable on the market - with it, commodities start to have prices - money as a standard of prices: a measure of the price (by monetary units).

→ a unit of account - abstract: SHAT in Ancient Egypt, material: metallic coins or banknotes - necessity for capitalist calculation, especially within the enterprise.

- Medium of exchange: directly & indirectly through commercial capital - the completion of an exchange act - delayed in time → means of credit → later on, means of payment, or of settlement of transactions.

- Store, stock of value : wealth - definition - forms in capitalist economy - the convertion of one form to the other (difficulty or easiness) - Assets and the liquidity of the asset-

defined by 3 characteristics: the degree of acceptance in society, the possibility of forcasting its future value and the cost of conversion to another asset - money (cash) is the most preveledged at these 3 levels: **<u>the most liquid of all assets</u>** - the term liquidity (in relation to the material economy): the amount and the degree of dispensability of means of payment available for all economic activities.

(When money serves as a store of value without being immediately usable as a medium of exchange it is called **<u>quasy - money; near money</u>**).

→ means of saving (hoarding).

→ form of capital: money capital.

C - The Monetary system:

- Three constituents: the monetary **<u>unit</u>** (the unit of currency) the kinds of money in circulation (metallic - paper - credit money) - the monetary standard.

- The monetary unit - the name of the national currency - defined by law - its multiplications and divisions - always the unit of account.

- the different kinds of money in circulation - the role of each and its capacity to discharge debt obligations - the relation between the different kinds of money in circulation-the quantity of each in circulation-the quantity of money-the velocity of money.

- the monetary standard - the core of the monetary system - its foundation: consists of a particular standard of measurement of economic values, in the last resort.

- the historical forms of the monetary standard: commodity monetary standard; fiat monetary standard.

- limit ourselves to the capitalist economy from the beginning of the 19th century uptill now: the monetary standard changes its form with the qualitative transformation of the capitalist economy.

- the distinction between four stages of development:

- beginning of the 19th century uptill the 1st world war (1914 - 1918).
- the stage between the two world wars.
- the post 2nd world war stage: 1944 (Bretton Woods) → 1971/72.
- from the middle of the 1970's uptill now.

- Main characteristic of each of these four stages, at the level of:

  - conditions of production of the surplus.
  - conditions of realisation of the surplus (commercialisation).
  - conditions of monetary circulation.

- The Gold standard - its historical forms :

  - Gold coin standard.
  - Gold bullion standard.
  - Gold exchange standard.

- The transition to the paper standard.
- The Dollar - exchange - standard: uptill 1971/72 - after 1972.
- The exchange market and the different systems of exchange
- The international liquidity.

Selected Readings

for

Chapter One

The Definition of Money

- **What is money, history of money, the concept of money.**
- **The functions of money.**
- **The monetary system: the mode of monetary circulation in the capitalist economy.**
- **Interntional money.**

AN OUTLINE OF MONEY

by

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Editor of *The Economist*

THOMAS NELSON AND SONS LTD

LONDON EDINBURGH PARIS MELBOURNE

TORONTO AND NEW YORK

AN OUTLINE OF MONEY

CHAPTER I

THE NATURE OF MONEY

THE INVENTION OF MONEY

WHAT is Money? That is a question which few people can answer, although nearly everybody thinks he knows the answer. It is reminiscent of the man who was asked to define an elephant, and could only reply that he would know one when he saw one. Everybody knows in practice what constitutes money, but few people would be prepared at a moment's notice to define money, to indicate precisely what differentiates money from other articles or commodities. This book is concerned with money, and it is an obvious preliminary to make it quite clear what we are talking about. But it will take a whole chapter to define money, and even then the definition can only be made intelligible to the layman by means of description. The dictionary defines an elephant as 'a mammal of Africa and India, having the snout prolonged into a prehensile proboscis'; but this would hardly be of much assistance in identifying the animal. Similarly, the dictionary definition of money as 'anything having a customary or conventional use as a medium of exchange or a measure, or denominator, of value' is comprehensive, but hardly precise or illuminating.

We may well begin on our task of describing money by relating the history of its development. This history is partly imaginary, though anthropological research has confirmed much of it. But in any case we are more concerned with the orderly logical development of the ideas now embodied in money than with scientific anthropology, and imagination may be allowed occasionally to usurp the place of recorded fact.

In the earliest stages of Man as a commercial animal, his trading consisted entirely of barter. The hunter exchanged his hides and pelts and meat for the corn and straw of the tiller of the soil. And both, in a slightly later stage, traded their products for the wares of the village craftsman. Now barter as a method of trade has several grave defects. One of these is the difficulty of settling on terms. The relative values of two or three of the more important articles of trade may be well known. It may, for example, be a convention of long standing that ten bushels of corn exchange for one cow. But how are the values of less actively traded commodities to be established? How many bushels of corn should exchange for one tiger-skin? And how many bananas for a goat? And how many pigs for a new wife? These are the commercial problems of private barter, and they are obviously not easy to solve. The first function of money is to help with the solution of these problems. Suppose that everything is valued in terms of one commodity. Let us suppose that this one commodity is the goat (as it is to-day among some East African tribes). Everything is valued in terms of the goat, and the terms of exchange between any pair of commodities can thus be easily established. A hunting-knife is worth ten goats, fifty bananas are worth one goat, five bushels of corn are worth two goats, a wife, if she is young and comely, is worth six goats—and so

on for every commodity. To us this invention seems very simple. It is merely the application to the sphere of value of the same idea that has produced the foot or the metre to measure length, the pound or gram to measure weight, the degree to measure temperature, and so forth. But at the time it was doubtless radical—the invention, perhaps, of some lazy genius who found himself oppressed by the task of calculating how many bushels of corn should exchange for one tiger-skin, if three bushels of corn were equal to five bananas, twenty bananas to one goat and twenty goats to one tiger-skin. And it undoubtedly was an invention ; it needed the conscious reasoning power of Man to make the step from simple barter to money-accounting.

This is the first of the three primary functions of money. It serves as a unit of account. It acts as a yardstick, or standard measure, of value to which all other things can be compared. Trading is still a simple exchange of goods for goods : bananas are still exchanged for corn, ox-hides for straw. But the terms of exchange are now fixed by reference to one standard commodity. The community is on the goat-standard. Money has arrived.

The establishment of a unit of account, however, does not remove all the difficulties of barter. There is still the difficulty of bringing the two parties together. John may have corn and want ox-hides. But Henry who has ox-hides may not want corn, and William who wants corn may not have any ox-hides. In a simple community where commodities are few, these difficulties can be overcome. But with every new development of commerce, with every fresh division of labour, with every extension of the list of commodities in trade, barter becomes more and more difficult. This difficulty also is solved by money. The unit of account becomes

also a medium of exchange. Corn is no longer *exchanged* for ox-hides ; corn is *sold* for goats, and goats are given in payment for ox-hides. Anything can be exchanged for goats, and goats can be exchanged for anything. In every transaction, money now not only fixes the terms, but mediates in the exchange. What was formerly a single exchange of corn for hides becomes a double exchange of corn for goats and goats for hides. The seller of corn need no longer seek out the seller of hides. They do their business through an intermediary. Money has become the first broker.

These two functions of money, its function as a unit of account and its function as a medium of exchange, are the two fundamental essentials. But there is a third whose importance is hardly less. In a barter economy the rich man is he who has a large store of things he wants. He must have fields to grow corn, forests in which to hunt game, animals to bear burdens and supply milk, servants to till the fields, hunt the game, and care for the animals, barns to keep stores against a poor year. But with the coming of money the acquisition—or at least the safekeeping—of wealth becomes a simple matter. For if goats are money, they will buy corn and game and domestic animals, they will hire servants and purchase other people's stores in time of famine. The rich man needs to do no more than keep his wealth in the form of goats. Money will serve as a store of value—and this is its third function.

Any substance or commodity which is to serve as money must perform these three functions. Together they constitute the invention of money. All later developments of money are merely refinements upon the primitive essentials. Money is one of the most fundamental of all Man's inventions. Every branch of knowledge has its fundamental discovery. In mechanics

it is the wheel, in science fire, in politics the vote. Similarly, in economics, in the whole commercial side of Man's social existence, money is the essential invention on which all the rest is based.

PRECIOUS METALS AND COINS

The example of a goat-money which has been taken is by no means fanciful. In primitive agricultural communities, domestic animals are the most obvious form of wealth and they frequently come to be used as money. But any animal has serious disadvantages as money. All goats are not alike ; if a man sells a piece of land for twenty goats, he may consider himself cheated when he receives the twenty skinniest and most diseased of the purchaser's flock. Moreover, goats have other disadvantages. An outbreak of disease may decimate a man's wealth. The breeding season will cause a plethora in the community's supply of money. Precautions have to be taken to see that one's money does not stray or fall victim to beasts of prey. Now just as domestic animals have certain grave disadvantages as money, so other commodities have outstanding advantages. It is a comparatively early discovery in the history of money that metals are among the most suitable of all commodities to serve as money. They are easily handled, their quantity is comparatively easily ascertained, they do not waste away, they need little storage space or attention. And since the annual production of a metal is only a small fraction of the total amount of the metal in existence, the available supply does not vary very much from year to year. And so in the next stage of civilization we frequently find metals serving as money.

Of all the metals, those known as the precious metals,

and particularly gold and silver, have become pre-eminently the money metals. Other metals have been used as money: iron, copper, bronze have each had their day. But in Western civilization at least, gold and silver have far outdistanced their rivals. It is worth making a short digression to investigate the connection between *precious* metals and money.

As soon as money was invented it became the object of men's desires. Since it would purchase anything, it became supremely worth having. What was really of value, what men really wanted, was the wealth that money would buy. The miser, the man who hoards money for its own sake and deprives himself of every good thing to acquire it, is rightly looked upon as an abnormal creature. But the perfectly normal man in the street does not entirely avoid the miser's mistake, for he also looks upon money as something that is valuable in itself. Every community, in selecting the commodity that is to serve it as money, nearly always chooses a valuable commodity. And, indeed, valuable commodities, as we shall see in a minute, have great advantages as money. But it is not their value which gives them their advantages, and an almost worthless commodity can serve perfectly efficiently as money, as we, who use bits of printed paper, ought to know.

The belief that since money is the key to all wealth it must consist of a substance that is itself valuable is very deep-rooted in human psychology. To this day the average man, if asked what makes money good money, would probably reply its value. Gold money, he thinks, being the most valuable money, is the best money. And if he were asked how it is that we accept worthless bits of paper, he would reply that they are backed by the gold in the Bank of England. The belief that money must either consist of, or at least be backed by, something

of value is sometimes carried to great lengths. For example, in 1923, when the great inflation in Germany had entirely destroyed the German people's faith in its money and there was an urgent demand for a 'good' money, the authorities produced a new currency, the Rentenmark, which was said to be 'backed by' the land of the country. It was true that a legal charge was placed on all the land of the country, but the Rentenmark note was not itself land, nor was there any method by which the holder of a Rentenmark note could possess himself of the land that was supposed to be behind his note. But the elaborate bluff worked, and so strong was the belief of the German people that any money which either consisted of, or represented, a valuable commodity was an efficient money, that the Rentenmark was accepted.

But this belief is fallacious. If it is the value of the money-substance which makes the money good, one would expect every community to use its most valuable substance as money. But in fact no community does so. The precious stones—for example, diamonds, rubies, pearls—have throughout their history been more valuable, weight for weight, than the precious metals. Even among the precious metals it is not necessarily the most valuable that is used as money. Gold has always been more valuable than silver. But silver has more often been used as money. Indeed, the French and several local dialects of English use the same word for 'money' and 'silver.' And if we inquire into the reason for this choice of the less valuable metal, we shall get the clue to the whole question. Gold was not used as money throughout the bulk of known history, although it was familiar and considered more valuable than silver, simply because it would have been inconvenient to use it as money. Indeed, it was *too* valuable. The amount of

gold needed to buy a loaf of bread would have been infinitesimal, and it is obviously inconvenient to have to deal in quantities of metal so small that they easily get lost. Only the very largest transactions could conveniently be settled in gold. Even in our own fathers' day, when gold was still the chief form of money, we had to have silver and bronze coins to accomplish the smaller transactions.

The reason why gold was too valuable to serve as money right through the Middle Ages was, of course, that it was too scarce. And so we arrive at the question which will occupy us for a large part of this book—the question of the proper *quantity* of money. We have just seen that money must not be too scarce, or else it will have to be handed round in inconveniently small quantities. It must also not be too common, or else it will have to be handed round in inconveniently large quantities. That is why iron failed to keep its place as money: nobody would be willing to carry several pounds of iron on his person to make his daily purchases. The money-substance must therefore be scarce, but not too scarce. And since metals are for other reasons convenient substances to serve as money, the most efficient money-substance will be a metal which is precious, but not too precious. Hence the choice of silver and, later, of gold, and the rejection of both platinum (which is too scarce) and iron (which is not scarce enough).

The point to notice is that it is the precise degree of *scarcity* which determines the choice of the money-substance and not its *value*. This may sound like a quibble, for are not scarce things valuable, and valuable things scarce? Throughout the greater part of monetary history the objection would be valid. But it is not to-day. For we have invented a money-substance, in the form of

paper money, which is scarce without being valuable. Laws against forgery prevent notes from becoming too common, but the paper on which they are printed is almost worthless. Their scarcity makes them an efficient form of money and their lack of value does not hinder them.

Mention of paper money, however, is an anticipation. We had got no further in our history of money than the choice of precious metals to serve as money and we must return to them. But the digression has served to establish the fact that there is no overruling reason why money should be made out of either a precious metal or of any other precious substance. Gold and silver were chosen simply because of their suitability for the job ; they are easily handled and stored, they do not deteriorate, they have just about the right degree of scarcity, and they can be relied upon neither to increase nor to diminish in quantity except gradually. But, in the earliest stages, precious metals still had two defects. In the first place, the ascertainment of their quality, though not a difficult process, was a troublesome one. The ordinary man did not want to have every piece of money that came into his hands assayed. And in the second place, metal is not the easiest thing to divide up into convenient units. If a man is buying a cow for two ounces of gold, it is inconvenient to have to cut the amount off the end of a bar. These difficulties were got over by the next invention in the history of money : that of coinage. The king of a country gradually undertook to issue lumps of the money metal of a standard weight and a standard degree of fineness, and he attested these lumps by stamping his image on them. That, quite simply, is the origin of the coin. So long as the public had confidence in the king's honesty and in his ability to prevent other people forging his likeness on coins of inadequate weight or inferior metal, his coins would be

accepted without question. But if doubts began to be cast upon either his integrity or the efficiency of his police, his coins were treated merely as lumps of metal like any other, subject to weighing and assay.

We have now arrived at the verge of historical times, and there were hardly any other developments in the technique of money until the modern age. There were, of course, incidents in the history of the coinage. The metals changed, and the denominations with them. The old names lost their meaning.[1] Debasements (*i.e.* the lowering of the metal content of the coin) were frequent, and the periods when coins could be taken absolutely on trust were rare. But throughout these long centuries money consisted, for all practical purposes, of coins.

One very interesting change was, however, in process beneath the surface. Gold and silver were originally chosen as money because they were, among other things, fairly scarce, and their scarcity made them valuable. When we say that a thing is scarce, we mean, of course, that it is scarce compared to the demand for it. Value is determined by the relations between Supply and Demand, and for a thing to be valuable it is not enough that there should be a comparatively large demand for it. Now gold and silver were valuable before they were chosen as money. That means that the demand for them, as ornaments and the like, was so large relatively to the amount of them in existence that they were scarce and valuable. And their scarcity and value played a part, as we have seen, in their selection as money.

The use of gold and silver as money very greatly

[1] Thus the English pound was, in origin, quite simply a pound of silver. But the connection between the pound as a unit of money and the value of a pound of silver has long since gone by the board. It is also interesting to note that the French franc stems from the livre, which was originally identical with the English pound. But to-day it takes 176½ francs to equal one pound.

increased the demand for them. If large quantities of gold and silver were required for coining, there was correspondingly less available for ornament or for the various industrial and dental uses which were later discovered for the metals. At the present day, for example, about half the annual output of the gold mines is required for monetary purposes. And of the remaining half a large part is, in a normal year, taken by Eastern countries for the purpose of hoarding, which can almost be counted as a monetary use. The demand for gold in industry, dentistry, etc.—that is, the demand for it as a *metal*, and not as a monetary or valuable substance—is only a fraction of the total demand for gold. But the value of gold is still determined by the relations between Demand and Supply. If gold ceased to be used as money,[1] and the demand for it fell to the purely industrial demand, it would be very considerably less valuable. So we have the curious position that though gold was originally chosen as money because (among other reasons) it was valuable, it is now valuable because it is used as money. The truth of this can be shown by what has happened to silver. Seventy years ago silver was still largely used as money, and the value of an ounce of silver was still roughly that of one-sixteenth of an ounce of gold. But since that time, one nation after another has abandoned the use of silver for money (except for subsidiary coins, such as the English shilling, which are no longer of importance), with the result that the demand for silver has fallen off, and its value has declined until, by the outbreak of war in 1939, it took about 96 ounces of silver to equal in value a single ounce of gold.

[1] 'Used as money' does not only mean handed round as money by the general public. Gold is still used as money, although the ordinary man rarely sees any. This is fully explained in Chapter IX.

PAPER MONEY

After coinage, the next great development in the history of money is that of paper money. Indeed, it is in many ways the most important since the invention of money itself. It has, at least, more possibilities both for good and for evil than any of the intermediate discoveries. But paper money, with all its potentialities, did not by any means spring at one bound from a single fertile brain. On the contrary, it has had a gradual development, in which at least four distinct stages can be noticed.

Metal money, together with the advantage of being easily carried, suffers from the disadvantage of being easily stolen, and from quite early times merchants must have formed the habit of carrying with them on their travels not actual money, but merely written evidences of their command of money. These written documents (of which the traveller's cheque and the letter of credit are the lineal descendants) were not in themselves money—they could not themselves be used to pay for purchases—but they were, in a sense, temporary substitutes for money. If they were lost or stolen, little harm was done. The money itself was still intact, and could not be touched without the merchant's signature. These documents would naturally take the form of a certificate from some person or body of known repute in the merchant's home town (the embryonic banker) attesting that the merchant had deposited such-and-such a sum of money with him and undertaking to pay, out of that money, any properly authenticated claims of the merchant's creditors. This is Stage One. The document is not yet anything but a substitute for money.

In the course of time, however, these documents would naturally come to be used as money. If an

Englishman goes to spend a holiday in Switzerland, taking traveller's cheques with him, he should, in theory, visit the local bank to change his traveller's cheques into Swiss money before paying his hotel bill. But in practice he will find that the hotel is prepared to take the traveller's cheques themselves. If so, they are serving as money, and this present-day example will serve to illustrate how, quite early in the history of trade, the banker's promise to pay developed from being merely a claim on money to being money itself. It was also a natural development that the promissory document, instead of being made out in favour of a particular person for the precise sum he had deposited, should be made out to bearer (*i.e.* to whomever came into possession of it) for convenient round sums. Instead of being a certificate that John Smith had deposited £283 17s. 5d. and a promise to honour drafts on that deposit up to that amount, the document became merely a promise to pay £1, £5, £10, or £100 (or some other convenient sum) to whomever presented the document. The possessor was henceforth deemed to be the rightful owner. This, of course, is the fully-fledged banknote. Even our present banknotes bear upon their face the evidence of their origin. Every Bank of England note, for example, bears the legend, 'I Promise to pay the Bearer on Demand the sum of One Pound' (or Ten Shillings, or Five Pounds, as the case may be), signed, 'For the Govr. and Compa. of the Bank of England' by the Chief Cashier. This then is Stage Two in the development of paper money. The banknote has arrived, but it is still no more than a receipt for cash deposited. It is used as money, but it is hardly yet generally considered as money. Just as the Swiss hotel proprietor will accept traveller's cheques in payment of bills (thus treating them, in effect, as money), he still

regards them not so much as money but as claims upon money. When he receives a traveller's cheque from a customer, he will hasten to cash it for money at his bank.

As banknotes became more familiar, however, they came to be not merely used instead of money, but regarded as money. The banknote was not used for one transaction only and then immediately cashed, it began to be handed round from person to person and used to settle innumerable transactions. It was as if the Swiss hotel proprietor, instead of cashing the traveller's cheque at once, used it to pay his waiters' wages, and they used it to pay their wives' housekeeping expenses, and so on and so forth. Now this had a most important consequence for the banker who issued the notes. If they continued to circulate from hand to hand, it followed that they did not come back to him to be cashed. Some of the notes he issued would, of course, be presented for payment in hard cash (*i.e.* coin), but bankers found by experience that—once they had acquired the reputation for solvency, without which a bank cannot do business at all—only a small fraction of their notes ever came back to be cashed. If any did come back, the banker (always assuming a continuance of the public trust in him) found it possible to issue as many new notes. This made it possible for the banker to issue more notes than he had received deposits of hard cash. How and why he could do this will be more fully explained in the next chapter. Here we are merely concerned with the fact that banknotes can be issued in excess of the hard cash deposited in the banks, and not merely 'in excess of' the deposits of cash, but to many times the amount of the deposits. For example, let us suppose that bankers have found, by experience, that they will only be asked to cash one note of every twenty

they have in circulation at any time. This means that they need to keep a reserve of cash equal to 5 per cent. of the total of notes outstanding. A prudent banker would probably double this reserve, so as to be on the safe side. But even then, he only needs £10 in cash in his till for every £100 in notes outstanding. In other words, when he receives £10 extra in cash from any source, he can issue £100 more in notes.

This is Stage Three in the development of paper money. And it is immediately apparent that it is a considerable step forward. Hitherto, in Stages One and Two, the banknote has been either not money at all or merely a convenient paper substitute for metal coin. Even in Stage Two, for every pound of notes outstanding, there is a pound of metal coin immobilized in some bank's vaults. The existence of banknotes makes no addition to the total amount of money in existence. But with Stage Three, banknotes emerge from the position of being mere substitutes for money. They constitute a very real and very large addition to the total supply of money.

The seventeenth and eighteenth centuries were the period when the banknote emerged from its chrysalis stage. At the beginning, as with most innovations, the invention of the banknote was both abused by its inventors and unpopular with the public. The man in the street thought that if the banker could, as he claimed, 'create' banknotes, which served as money, out of thin air, then he was both a dangerous and a dishonest person. (We shall have to discuss both questions, whether the issue of banknotes can really be called 'creation of money' and whether it is an honest and proper proceeding, in the next chapter.) Some of the earliest banks were compelled to close their doors when it became known that they had issued notes in excess of

their cash resources; the holders of their notes were not sure whether the banks were honest, but they felt quite certain that they were not solvent, and accordingly rushed to cash their notes. Even where public distrust did not show itself so violently, bankers were frequently intoxicated by their strange new power; they issued notes not merely in excess of their cash reserves, but in excess of the prudent multiple of their cash reserves. They were thus unable to cash even that fraction of their notes which was presented for redemption. And, of course, if a bank fails to redeem on demand the promise printed on even a single one of its notes, all of them will be presented for redemption by their frightened holders. The great majority of a bank's notes will *not* be presented for redemption only so long as the bank cashes promptly and without hesitation the minority that *are* presented. Frequent bank crashes—and such ventures as that of John Law in France in the early eighteenth century, when great schemes of fantastic nature were wholly financed by the issue of notes in almost unlimited quantities—brought the banknote into considerable disrepute, and the state had to step in to regulate the position. Even without the abuse of the system the state could hardly remain indifferent in the face of an invention which threatened not merely to multiply the supply of money available to the public, but to make it subject to violent change. There was hardly such a thing, two hundred years ago, as a theory of money, but the statesmen of those days had no need of a theoretical equipment to realize that uncontrolled issues of banknotes threatened the whole economic structure of the state. The exact form of the regulation differed from time to time and from place to place. But in general, issues of notes were usually severely limited by reference either to the bank's capital (*i.e.* the cash

paid into it by its proprietors) or to its deposits of coin (*i.e.* the cash paid into it by its customers) or to both. The issue of notes in excess of cash-in-hand was not entirely prohibited, but it was very severely restricted.

In England, from the start, the Bank of England had been given a privileged position, and it is nearly two centuries now since it was first given a partial monopoly of note-issue. Gradually that partial monopoly has grown more and more complete, until to-day, although other banks still issue notes in Scotland, Ireland, and the Isle of Man, the Bank of England alone has the legal right of note-issue in England and Wales. This is not the only privilege that the Bank of England note enjoys, for since 1833 it has been 'legal tender,' that is to say, recognized by the law as full discharge of a debt. Not only is it customarily used as money, it is declared by the law to be money.

When the banknote had evolved as far as the Bank of England note, it had clearly left far behind its original status as a mere claim to, or substitute for, metal coins. Nevertheless, the circumstances of its origin still clung to it. The banknote was not considered to be a safe or 'sound' form of money unless it could be converted on demand into gold coin. It is true that the convertibility of Bank of England notes had been suspended during the Napoleonic Wars between 1797 and 1819. But this period of the suspension of convertibility was regarded as a temporary and unwelcome by-product of war. It was associated with unsound financial practices and economic chaos. It was the exception, which proved the rule that a paper currency, to be reliable, must at all times be convertible into gold. When war came again in 1914, convertibility was once more suspended. But still deference was shown to the theory of con-

vertibility, for the law compelling the Bank of England to convert its notes into gold on demand was retained on the statute book. But both the export and the melting of gold were prohibited, so that there was no point in attempting to convert notes into gold, since you could do nothing with the gold when you had it. In 1925 convertibility was once more restored. But the age-long distrust of paper money was beginning to disappear. For under the new Act the Bank of England was no longer under the compulsion of converting every single £1 note presented to it into a gold sovereign. You could still get gold for your notes, but only if you were prepared to take at least one bar of gold, at about £1,700 a bar. The man in the street could no longer get gold for his notes. And he did not care in the slightest.

The truth at long last was coming out. The early banknotes were trusted only because they could be converted into gold. But after two centuries of Bank of England notes the public had come to accept them for their own sake. The ordinary man was perfectly content with Bank of England notes, because he knew that they would perform every service that he required his money to perform. This had been true at least since 1833, when notes were made legal tender, and in fact for even longer, but it had taken a century for the law to recognize the true state of affairs. In 1931, when the gold standard was once again suspended, the change was completed, for since then Bank of England notes have been wholly inconvertible. The 'Promise to Pay' which appears on their face is now utterly meaningless. Not even in amounts of £1,700 can notes now be converted into gold. The note is no more than a piece of paper, of no intrinsic value whatever, and if it were presented for redemption, the Bank of England could honour its 'Promise to Pay

One Pound' only by giving silver coins[1] or another note. But it is accepted as money throughout the British Isles. This is Stage Four, the final stage, in the evolution of the banknote. And with its attainment the gold coin, which, together with its silver consort, seemed the only possible or conceivable form of money, has disappeared. The reign of the precious metals was so long that they had almost acquired a Divine Right. But it was over at last, and there is hardly a country in the world where metal coins now circulate, except in the form of token coins, mere rank-and-file assistants to the dominant paper.

There was, it is true, a little more reason in the general belief in the necessity for retaining the obligation of conversion into gold than has been implied above. Nearly every experience of inconvertible banknotes known to monetary history has been associated with monetary instability. So long as the obligation to convert remains it imposes a severe restraint upon the note-issuing authority. When it is removed, the temptation to issue excessive quantities of notes is very strong, and it is hardly surprising that inconvertibility has nearly always been synonymous with excessive issues. But it is the excessive issues and not the inconvertibility that have caused the trouble. The way to avoid the harmful results which follow is not to insist upon con-

[1] Our present silver and copper coins should not be confused with the gold and silver coins of which we have been speaking earlier in this chapter. The gold in a pre-war sovereign was worth precisely £1, and throughout history coins have in the great majority of cases been valued according to their metallic content. But the silver in a present-day shilling is worth very much less than 1s. The coin derives value not from the silver in it but from the implied undertaking of the State to accept twenty shillings for a pound. The shilling is, in fact, a note printed on metal for the sake of convenience. Coins of this sort are usually called token coins.

vertibility, but to make some other arrangement for limiting the number of notes issued. When this is done, an inconvertible paper currency is a perfectly satisfactory form of money, as is shown by the experience of Great Britain since 1931. But this is a large subject, with more ramifications than it is appropriate to go into now. It will be fully discussed in Chapter IX.

One more form of money in use in the modern world remains to be described. This is the form of money that is handed round from person to person by means of cheques. At first sight, it appears to be very different from any other form of money, but in its fundamental principles it is merely a variant of the banknote. It will be remembered that one of the conveniences of the earliest form of monetary paper—what we have called Stage One—was that it was not itself money, but merely a claim to money, and could therefore be carried about without risk of loss or theft. But as soon as the banknote became money in its own right this convenience disappeared. If to-day you lose a Bank of England note, you are poorer in just the same way as if you had lost a gold coin.

The invention of the cheque gets round this difficulty. The banknote, it should be remembered, is no more than an evidence of a debt owed by the issuing bank. It is an IOU, with the name of the creditor left blank. Because the public is confident that the promise *would* be honoured, the note circulates as money. What is handed round is the evidence of a bank's indebtedness; when Smith gives Jones a £1 note, the Bank of England's debt of £1 to Smith is transferred to Jones. A cheque performs precisely the same function. Smith may have a deposit of £1 at the bank. That means that the bank, being in debt to Smith for £1, instead of giving him a transferable printed IOU for the amount, merely

credits him with £1 on its books. If now Smith draws a cheque for £1 in favour of Jones, he is, in effect, instructing the bank to transfer its debt from himself to Jones, and the £1 will, in fact, be transferred from Smith's account to Jones', either at the same bank or some other. What has happened is precisely the same as when a banknote is handed over. The bank's indebtedness has been transferred from one person to another. It is true that a cheque is different from a banknote : it specifies both parties to the immediate transaction as well as the ultimate debtor, the bank ; it is made out for a precise sum ; and, most important, it usually expires with a single transaction. But the cheque is not the money that settles the transaction ; it is merely the means of transferring the real money, which is the deposit in the bank, *i.e.* the acknowledged debt of the bank. If there is no deposit behind the cheque, it will not be honoured, and tradesmen frequently hesitate to accept cheques because they do not know whether they are 'good' or 'bad.' But nobody would refuse to accept the transfer of a bank deposit. It is the deposit which deserves the name of 'money.' The only difference between banknotes and bank deposits is that in the one case the indebtedness of the bank is embodied in the form of a piece of paper and is transferred by the act of handing the piece of paper over, and in the other case the indebtedness is merely recorded on the books of the bank and transferred by a written order signed by the creditor. In both cases it is the transfer of the bank's debt that accomplishes the transaction. Both methods have their conveniences, and in the modern world we use both together.

Pure convenience might have been enough to give birth to the cheque. But in England it was also helped by the limitation on the issue of banknotes. After the

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Bank Act of 1844, note-issues, whether by the Bank of England or by other banks, were very severely limited. But the community, which was growing both in size and in wealth, had need of an ever-increasing supply of money. Moreover, the banks, for reasons which will be apparent in the next chapter, find it a highly profitable business to have their IOU's circulate as money, and when they were limited in their issue of IOU's in the formal printed shape of notes they naturally turned to the alternative method of cheques and deposits. Cheques, or something very similar, were known as early as the second half of the seventeenth century, but the great expansion of their use dates from the Bank Act of 1844 and similar enactments limiting the issue of notes. This view is reinforced by the fact that, except in the United States, where circumstances were very similar, and in the British Dominions, which take their monetary customs from Great Britain, cheques are still very little used in foreign countries.

In Great Britain, however, cheques are now by far the most frequently used method of transferring money. The total of bank deposits is five times as large as the total of banknotes in circulation, and many times larger than the total of all other forms of money. Deposits, however, are still only in Stage Three of their development. They are not legal tender, and any creditor is entitled to refuse payment if it is tendered in the form of the transfer of a bank deposit. Nor are bank deposits inconvertible. The Bank of England can refuse to redeem the promise that is printed on its notes. Its Promise to Pay is not exactly withdrawn, but it has become a debt which, like British Government Consols, never matures. The other banks, however, are still under the obligation to redeem their deposit-debts, if called upon to do so, in some form of legal tender

money.[1] If, sometime in the future, the existing banks are nationalized and turned into one organization owned by the State, their deposits may become both legal tender and inconvertible. There is no reason why they should not thus progress to Stage Four of their development.

WHAT IS MONEY?

We have now described money, with some elaboration of history and theory. But we have not yet defined it. What, after all this discussion, is money?

To answer the question we must recall the three functions of money with which we started. Money must serve as a measure of value, as a medium of exchange, and as a store of wealth. Of these three functions the second is the most essential. Other things may serve as measures of value or as stores of wealth. Thus the values of many articles in Great Britain are measured in guineas, but there has long since ceased to be any coin, or indeed any form of money, answering to the name of guinea. Stock Exchange securities are an obvious way of storing wealth, but you cannot buy a single box of matches with stock or a share. Neither guineas nor Consols are money. Money must be something which performs all three functions, and pre-eminently the function of being a medium of exchange. For the purposes of this book—and, indeed, for most purposes—money can be defined as *anything* that is *generally acceptable* as a means of exchange (*i.e.* as a means of settling debts) and at the same time acts as a measure and as a store of value.

The significant words in this definition are those in italics. To be money a thing must be generally

[1] There is, for all practical purposes, only one form of legal tender money in Great Britain—to wit, Bank of England notes.

acceptable. Many things are acceptable for particular purposes. Thus gift coupons are accepted in payment for a large variety of goods. But they are not *generally* acceptable in payment for *anything*; accordingly, they are not money.

And, secondly, *anything* that is generally acceptable is money. This definition would not be satisfactory to all writers on the subject. Some of them, particularly those with a legal bent of mind, have tried to limit the definition of money to things that have been legally recognized as money. But this is an awkward distinction, because bank deposits (which are not legally recognized as money) are used in the same way and have precisely the same economic effect as banknotes (which are legally recognized as money). Whatever the lawyer may think, the economist has no option but to treat as money everything that is generally acceptable in payment of debts. When the distinction is necessary, the legally recognized banknote can be called *currency*; the legally ignored deposit can be called *bank-money*. But both are money. And so would be anything else that was generally accepted and could be used, not merely once in a way to buy particular goods, but always and for goods and services as varied as tea, tram-rides, tacks, and tri-nitro-toluene.

The only essential requirement is general acceptability. Money, as we have seen, need not itself be valuable. It must, indeed, be relatively scarce, since it would hardly do if money could be plucked off every tree. But provided precautions are taken to keep it relatively scarce—and, it may be added, comparatively invariable in amount—money can consist of things as worthless as a scrap of paper or the scratch of a clerk's pen in the books of a bank.

E. Victor Morgan

A History of Money



Penguin Books

Chapter 1

Money as a Medium of Exchange

Origins of money – Greek and Roman coinage – British coins – the beginnings of credit – banking and banknotes in Britain – the 1844 Bank Charter Act – development of the cheque – inconvertible notes – inflation

Adam Smith regarded a 'propensity to truck, barter, and exchange one thing for another'[1] as one of the basic ingredients of human nature. Though this would hardly commend itself to the modern social psychologist, it is undoubtedly true that man has been engaged in the process of 'truck, barter, and exchange' from very early times. Even in the Palaeolithic age, when man was mainly a hunter and food-gatherer who had not yet learned to cultivate plants or domesticate animals, some goods travelled far from their place of origin. Amber from the Baltic has been found among Palaeolithic remains in Moravia, Austria, and France; shells and shell jewellery travelled from the Atlantic coast to northern Italy and from the Red Sea to Switzerland, while flint has also been found in many places far from any natural source. Such movements of goods could have been brought about by migration, plunder, gifts, or primitive forms of barter.

Rudimentary forms of exchange go back thousands of years beyond the earliest written records, and we can only infer what they were like from the remains found by archaeologists and, to a limited extent, from observation of primitive tribes which have survived. The earliest form of trade was probably the so-called 'silent trade' in which the participants had no direct contact.

1. Adam Smith, *The Wealth of Nations*, ed. E. Cannan, 6th ed., Methuen, 1950, vol. 1, p. 15.

Members of a family or tribe would come to an open space, lay out the goods of which they wished to dispose, and take cover. The other parties to the bargain would then approach, set out whatever they were willing to offer in exchange, and also retreat. Those who had made the first move would then return and inspect their neighbours' offer; if they were satisfied, they would take up their neighbours' goods and depart, leaving their own behind. If they regarded the 'price' as insufficient, they would remove some of their own goods and take cover again to allow their neighbours to inspect the new offer, and this awkward form of 'haggling' would continue until both sides were satisfied. The exchange of gifts between leading members of different tribes (often mentioned both in Homer and in the Old Testament) played an important part in social and economic life. Besides their social and political role such gifts enabled one group to share in the products of another and so provided a forerunner of more organized forms of exchange.

These primitive forms of exchange took place by the simple bartering of one thing for another without the intervention of any form of money. Barter, however, has disadvantages which prevent its use in any but the simplest transactions. To begin with, barter requires what is known, technically, as a double coincidence of wants. If I wished to barter this book for, say, a motor car, I would have to find not only a publisher who wanted to publish it, but a publisher who both wanted to publish it and wanted to exchange it for a motor car. Even if I found such a person, however, my problems would not necessarily be over. I might believe, and the publisher might agree, that the book was worth more than the particular car of which he wanted to dispose; then if he did not have a better car, and was not interested in an unfinished book, we should still be at an impasse. To pursue this fanciful example a stage further we may imagine the publisher attempting to barter copies of the book for food and clothing, house-room and holidays, concerts and paintings, and also buying with such payment in kind the services of printers, proof-readers, binders, and all the others who help prepare a book for sale. Clearly such a situation would be absurd, and it is obvious that so long as trade is confined to barter, each household must produce mainly for its own requirements,

and only occasionally exchange its products for those of others.

All these difficulties can be avoided, however, if there is one generally accepted means of payment, in which sellers can receive an agreed price and which they can spend in buying anything they like. The development of money is, therefore, a part of the evolution of human society comparable in importance with the domestication of animals, the cultivation of the land, and the harnessing of power. It was an essential prerequisite for the move from subsistence production to specialization and division of labour.

The origins of money, like those of trade, lie far beyond the earliest written history. The function of money as a medium of exchange is closely related to that of a standard of value, which will be discussed in the next chapter. It is probable that, as barter transactions grew more sophisticated, men formed the habit of assessing 'prices' in terms of a standard article, and that this standard also came to enjoy preferential treatment as a medium of exchange. Cattle served as a standard of value in Homeric times, and our own word 'pecuniary' is derived from *pecunia*, the Latin for money, which, in turn, came from *pecus*, cattle. Cattle have been used as a form of money until very recently by primitive tribes in places as far apart as Siberia, Kenya, West Africa, and Colombia. As a means of payment they have obvious disadvantages, but they were used in large transactions such as the purchase of a slave or a wife, and in the payment of tribute. Other goods which came to serve both as a standard of value and as a means of payment were cloth and cereals; once again, there are parallels among primitive tribes in recent times, for example the rice standard of the Philippines and the mats and bark cloth of Samoa.

Some of the earliest Babylonian records (around 3000 B.C.) show a legal distinction between 'exchangeable goods', which could be transferred from one person to another with very little formality, and 'non-exchangeable goods', for which a formal transfer deed was required. Exchangeable goods included gold, silver, lead, bronze, and copper; honey, sesame, oil, wine, beer, and yeast; wool and leather; papyrus rolls and arms, all of which probably served, in varying degrees, as means of payment.

In other parts of the world, the earliest means of payment seem to have been ornaments or objects with a ceremonial or religious significance, including 'models' of tools and implements. Arrow-heads of semi-precious stones have been found in Japan, and mother-of-pearl fishhooks in New Guinea; excavation in various parts of Northern Europe has produced stone axes too small and fragile for any practical use; metal rings, spirals, and wheels are also very common. The best known and most widespread of the ornamental currencies is, however, the cowrie shell. It was used as a means of payment in India, the Middle East, and China, probably for several thousand years before Christ, and it continued to circulate in historical times over large parts of Asia, Africa, and the Pacific islands, from Nigeria to Siam, and from the Sudan to the New Hebrides. Even now its use is not quite extinct, and when the Japanese invaded New Guinea in 1942 they distributed cowries so freely as to cause a sharp fall in their value and, in the words of an aggrieved district officer, 'endanger the economic and financial stability of the district'.

One important difference between the forms of money just described and the 'exchangeable goods' of Babylon is that the latter changed hands by weight whereas the former passed by tale (i.e. by counting the required number, instead of weighing). Even when the monetary object was made of a substance valued in itself, not too much attention was paid to its material content, so long as it was of the 'correct' shape and appearance. The coin appears to have evolved as a compromise between these two principles, passing by tale but only because it bore on its face a state guarantee of weight and fineness.

It is impossible to date this process with any precision, but it certainly extended over many centuries. The precious metals came to enjoy pre-eminence among 'exchangeable goods' as a means of payment; the multifarious shapes into which they had been wrought gradually gave way to more or less standardized bars; and the bars were stamped by some public authority as a guarantee of fineness. For a long time, however, metal bars still changed hands by weight and the talent was originally a measure of weight.

Meanwhile the metal 'tool money' of northern Europe was

working its way towards the Mediterranean, and spits, tripods, basins, axes, and rings, served as money for small payments in Homeric Greece. These articles were originally of bronze but in post-Homeric times iron spits were used. One of the smallest Greek monetary units, the *obolus*, probably derived its name from the iron spit (*obelos*) while the *drachma*, which has remained the principal Greek monetary unit to this day, was originally a handful (six) of spits.

Metal discs which may have had some monetary use have been found among Cretan remains of the thirteenth century B.C., but the earliest European coins of a recognizably modern type came from Lydia, in Asia Minor, and were probably struck during the ninth or eighth century B.C., though some scholars put the date even later. The earliest coins were probably made by merchants, but the function of coinage was soon taken over by governments, and between the eighth and sixth centuries B.C. the various states and cities of the Aegean and Asia Minor each came to issue coins bearing their own emblem – the lion's head of Lydia, the turtle of Aegina, the winged horse of Corinth, and the owl of Athens. The early coins of Asia Minor were of electrum, an alloy of gold and silver, which was very precious. Even the smallest coin was too valuable for small payments and they were probably used mainly by merchants engaged in inter-city trade. Silver was coined in Aegina about 750 B.C., and the first coinage of gold on its own is attributed to Croesus, king of Lydia, in the sixth century.

The coinage of China goes back to the Chou dynasty, which held power from the twelfth to the third century B.C. Some of the earliest coins had the shape of cowrie shells, others of swords, knives, and spades. Several centuries before Christ, however, round discs of copper with square holes in the middle were being made, the 'cash' which survived until modern times. With rare exceptions copper was the only metal coined, though silver ingots were used by weight for large payments and, for a long time, cowries, salt, and pieces of silk were also used.

An important development in the technique of minting occurred during the seventh century; a pattern was engraved on the head of the punch as well as on the die, so that coins could be stamped with a design on both obverse and reverse sides, and

different denominations were distinguished by different designs on the reverse, as they are in modern British coins.

Athens at this time was short of the precious metals, and had to depend on Aegina for her coinage. The capture of the island of Salamis (*c.* 600 B.C.) opened up the trade route to Corinth, and Solon was able to begin the series of Athenian coins which exercised a dominant influence over the coinage of the Eastern Mediterranean for several centuries. Solon began the practice, which was followed by many later rulers, of a seignorage, or charge for coinage. The accepted Greek standard at this time was 100 drachmae to the mina, and 60 minae to the talent (still a measure of weight) of silver. Solon, however, caused 6,300 drachmae to be struck from the talent, thus reducing the bullion value of the coin below its face value, and leaving a margin of profit for the state.

The silver coins of Athens and other Greek city-states were small enough to enter into retail trade and to serve for the payment of wages, and so brought the benefits of money as a medium of exchange to a far larger section of the community. By the fifth century B.C. the Athenian economy had reached a very high degree of specialization. Slave labour was important, but even slaves were sometimes paid a 'ration allowance' in coin instead of being fed by their masters. The hiring of slaves was a common practice and there were a growing number of freedmen, *metics* (foreigners who did not enjoy the full privileges of citizenship), and even freemen who regularly worked for wages, either on their own or in workshops. Time-rates of wages in fifth-century Athens were a drachma a day, but payment by piece-rates was also known.

The relationship between the growth of money and the decline of slavery is an interesting one. The development of a money economy is obviously not enough, in itself, to put an end to slavery, for many countries have kept slaves along after they had developed highly sophisticated monetary systems. In the absence of money, however, some kind of slavery or serfdom is almost inevitable. The operation of even simple economic activities requires that some people should organize and control the work of others; in a monetary economy, this can be done by hiring the services of a free man; in a non-monetary economy,

control over work implies restriction on the personal liberty of the worker. One can fairly say, therefore, that the emergence of a class of wage-earning freemen marks a decisive stage in the social and political, as well as economic, organization of mankind.

The earliest bronze coins are believed to have been struck in Sicily in the fifth century B.C. Gold and bronze coin was struck in Athens in 407 and 406 B.C. respectively, during the Peloponnesian War. The financial needs of a government at war provided the immediate motive for this change in the currency, as for many later ones. Gold was, however, more convenient than silver for very large transactions, and bronze for very small ones, and both metals came into increasing use during the fourth century B.C. Fourth-century Persia appears, however, to have been the first country to operate a truly bi-metallic standard, regularly coining gold and silver at a ratio of 13½:1. This valued gold rather more highly than did the Greeks, for Philip of Macedon coined the two metals at a ratio of 10:1. Already rulers coining both gold and silver were faced with the problem, which has recurred whenever a bi-metallic system has been operating, of what is the right relationship between the two metals.

Alexander the Great brought a uniform system of coinage, based on that of Athens, to all the territories that he conquered. There is some reason to believe that his conquests also released large amounts of gold and silver from the treasure hoards of the rulers whom he subdued, and that this sudden increase in the supply of money was associated with a violent rise in prices. If this were so, it would be a very early example of monetary inflation, but the evidence is too sparse to be conclusive. Alexander also played a posthumous part in the history of the coinage. After his death, his successors placed the image of his head on the obverse side of their coins, instead of the city emblems or representations of the gods which had formerly occupied that position. From this use of the head of a dead ruler it was a short step, and one quickly taken by the Seleucid dynasty in Syria, to representing the features of a reigning monarch.

Greek monetary influence extended westward to Sicily and Carthage, but until the third century B.C. Rome used only rather crude bronze coins known as *aes*. The silver *denarius*, which

became the basis of the Roman monetary system, was first struck in 268 B.C., though it was probably just preceded by Roman issues of silver coins of Greek denominations. Just before this time Rome and Carthage were allied in the Pyrrhic War, and legend has it that the Roman authorities, in financial difficulties, sought the advice of the goddess Juno. They were assured that, if they waged war rightly, money would not fail and, in pious gratitude, they gave the goddess the title of 'moneta', and installed a mint in her temple on the Capitol. Whatever the truth of this story, the Roman silver coinage certainly owed much to Carthaginian influence; Juno was the name by which the Romans referred to the patron goddess of Carthage and the word *moneta* was probably of Carthaginian origin.

The early Roman coins represented deities and heroes, but in the second century B.C. these gave way to mythological themes glorifying the ancestors of noble families. Portraits of historical figures appeared on the obverse, but the Romans were very reluctant to use portraits of living persons; Julius Casear was the first Roman thus to be portrayed, but only in the last year of his life. Imperial Rome also made skilful use of the coinage for political purposes by using the reverse to represent the various traditional 'virtues', selected as occasion demanded. Sometimes the device was used as a way of stirring up political feeling by adverse comment on an opposing faction, but generally its influence was unifying. 'To promise Pax and Victoria, to assert the potency of Pietas and Justitia and Constantia and Libertas, was to make legitimate definition of the spirit of the times in terms, which, spreading further and further from the centre of the empire, helped to unite its innumerable inhabitants in the simple bond of common political philosophy.'[1]

The Romans not only varied the appearance of their coinage to suit political ends, but also manipulated its value to suit the financial needs of the state. At the time of the introduction of the denarius the bronze 'as', which had previously been the unit of account, was halved in weight, and there were big reductions in the weight of the coinage in both the first and second Punic Wars. Roman governments never developed a long-term

1. C. H. V. Sutherland, *Coinage in Roman Imperial Policy*, Methuen, 1951, p. 178.

'national debt' but in times of war they incurred large short-term liabilities; after a debasement these could be discharged in the lighter money, so that a reduction in the weight of the coinage also implied a repudiation of a large part of the public debt. Final victory over Carthage was followed by a long period of stable money and rapid economic growth, but under the Empire state finances were again impaired, among other things by the lavish donations or *liberalitates* which successive emperors handed out to the citizens of their capital. The emperor Nero began a new series of debasements, which continued until the end of the third century A.D., partly by reductions in the weight of the coins, and partly by the issue of plated coins. By the end of the third century things had grown so bad that traders were very reluctant to accept coins at their face value, and the coinage as a means of payment was in danger of breaking down. In A.D. 296, however, Diocletian introduced reforms which gave Rome its last period of stable currency before the break-up of the Empire.

Coins of various kinds were circulating in Britain before the time of Julius Caesar, but they were probably imported from Europe. Caesar mentions the use of iron bars also as currency by the Britons, and this is supported by the discovery, in the midlands and the south-west, of large numbers of such bars, resembling half-finished swords. Some authorities believe them actually to be unfinished weapons, but the more general view is that they were one of the fairly numerous 'weapon' and 'tool' currencies which circulated in various parts of the primitive world. Between Caesar's invasion and the conquest of Britain by Claudius several British kingdoms struck their own coins, but after the conquest these were soon replaced by Roman imperial coins which were minted in London from the third century.

The departure of the Roman legions brought confusion to the coinage as well as to other aspects of political and economic life. Local rulers struck their own coins and soon there were a multitude of small and rather crude silver coins, varying in design according to the fancy of individual moneyers. These are known to modern numismatists as 'sceattas', though as early as 693 they were referred to as 'pennies' in the laws of Ine, king of

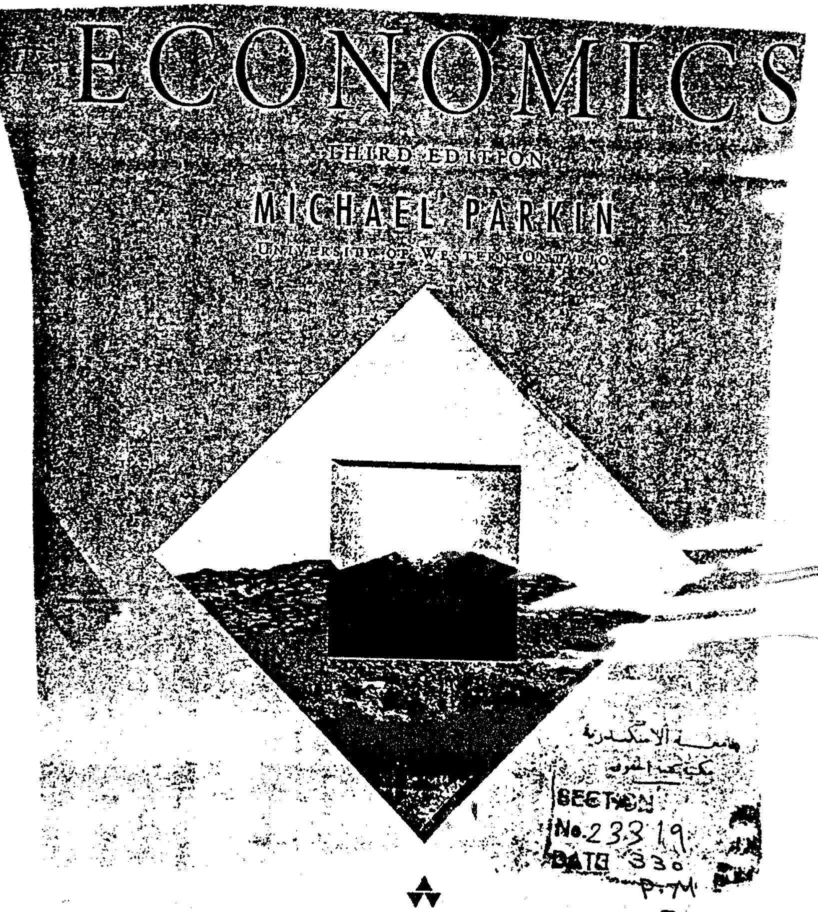
Wessex. The earliest form of this word is 'pending', and it is thought to refer to coins struck by Penda, who ruled the kingdom of Mercia in the second quarter of the seventh century. The continuous history of the penny, however, begins with the coins struck by Offa, king of Mercia, around 760. Within the next hundred years pennies came to be regularly accepted by tale, two hundred and forty of them being struck from a pound of silver. The shilling also derives its name from a Saxon word, *scilling*, originally meaning a 'piece cut off'. At first this word was used to describe fragments of coins or broken pieces of silver which were thrown into the scale to make up the required amount when payment was made by weight. In later Saxon times, however, it came to mean four pennies.

William the Conqueror took over the Saxon penny, established his main mint in the Tower of London, and adopted the standard fineness of 925 parts of pure silver in 1,000 which came to be known as 'sterling silver', or 'the ancient and right standard of England'. From time to time kings departed from this standard, but such conduct was always viewed with disfavour, and pressure of public opinion forced a return to the standard which was regarded as 'ancient and right'. Until the end of the thirteenth century, the silver penny was virtually the only coin which circulated in Britain. For accounting purposes, however, the Normans used the Roman system of the pound (*libra*) of twenty *solidi* and the *solidus* of twelve *denarii* (pennies). Within a short time of the Conquest the adaptable Saxon word *scilling* was applied to the *solidus*.

Throughout the Middle Ages the currency was exposed to the double menace of clipping and counterfeiting. It was comparatively easy, and obviously profitable, to produce imitations of the official coinage in baser metal and, despite the most savage penalties, there was a steady stream of forged money. Even easier was the mutilation of the good coins by clipping or filing metal from the edge. An effective remedy for this was only found in the seventeenth century, when a Frenchman, Pierre Blondeau, invented a machine to produce coins with a milled edge. Blondeau came to England in 1649, but the craftsmen of the mint succeeded in holding up his invention for a further fourteen years.

The activities of the clippers and the forgers produced a series of cycles of debasement and reform. Good coins would be clipped and bad ones uttered (i.e. put into circulation) until the currency fell so far below the legal standard that it was regarded as intolerable; then the king would call in money (good and bad alike), melt it down, and reissue it as coins of standard weight and fineness. The Crown, however, was neither able nor willing to bear the loss involved in this operation; generally, the loss was thrown on the holders of the base money, but their burden was sometimes alleviated by making the new coins of standard fineness, but of lighter weight. Thus, by the end of the fifteenth century, 480 pennies instead of 240 were being coined from a pound of silver. The important thing, however, was that (although the monetary pound no longer coincided with the pound weight of silver) accounts were still being kept in pounds, shillings, and pence, and payments were made in coin by tale, not by weight. Money, both as a unit of account and as a means of payment, was coming to have an existence separate from (though still very closely related to) the metals of which the coins were made.

Gold coin was introduced into medieval England in the course of international trade, largely by Italians. Henry III made an unsuccessful attempt to issue a gold penny, and the regular coinage of gold only began with Edward III's gold florin of 1343. However, gold never seriously challenged silver as the main means of payment, partly because it was still too valuable to form a convenient medium for small transactions, but also because it was usually undervalued at the mint in relation to silver. Whenever the two metals circulate together, the one which is undervalued will tend to go out of circulation. To take an actual example: in 1464, the mint price of silver was fixed at 35·2d. per oz., and that of gold at 32s. 9·4d. per oz., a ratio of 11·17 to 1. If an ounce of gold in the bullion market would fetch more than would 11·17 oz. of silver, it would clearly not pay to bring gold to the mint while holders of gold coin could make a profit by melting it and selling it as bullion, and so gold coin would tend to disappear. Changes in mint ratios were made from time to time in response to changes in the relative market value of the metals, but until the beginning of



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What Is Money?

WHAT DO WAMPUM, TOBACCO, AND NICKELS AND dimes have in common? Why are they all examples of money? To answer these questions, we need a definition of money. **Money** is any commodity or token that is generally acceptable as the means of payment. A **means of payment** is a method of settling a debt. When a payment has been made, there is no remaining obligation between the parties to a transaction. So what wampum, tobacco, and nickels and dimes have in common is that they have served (or still do serve) as the means of payment. But money has three other functions:

- Medium of exchange
- Unit of account
- Store of value

Medium of Exchange

A *medium of exchange* is an object that is generally accepted in exchange for goods and services. Money acts as such a medium. Without money it would be necessary to exchange goods and services directly for other goods and services—an exchange called **barter**. For example, if you want to buy a hamburger, you offer the paperback novel you've just finished reading in exchange for it. Barter requires a *double coincidence of wants*, a situation that occurs when Erika wants to buy what Kazia wants to sell and Kazia wants to buy what Erika wants to sell. To get your hamburger, you must find someone who's selling hamburgers and who wants your paperback novel. Money guarantees that there is a double coincidence of wants because people with something to sell will always accept money in exchange for it. Money acts as a lubricant that smoothes the mechanism of exchange.

Unit of Account

A *unit of account* is an agreed measure for stating the prices of goods and services. To get the most out of your budget, you have to figure out, among other things, whether seeing one more movie is worth the price you have to pay, not in dollars and cents, but in terms of the number of ice-cream cones, sodas, and cups of coffee that you have to give up. It's easy to do such calculations when all these goods have prices in terms of dollars and cents (see Table 30.1). If a movie costs $6 and a six-pack of soda costs $3, you know right away that seeing one more movie costs you 2 six-packs of soda. If jelly beans are 50¢ a pack, one more movie costs 12 packs of jelly beans. You need only one calculation to figure out the opportunity cost of any pair of goods and services.

But imagine how troublesome it would be if your local movie theater posted its price as 2 six-packs of soda, and if the convenience store posted the price of a six-pack of soda as 2 ice-cream cones, and if the ice-cream shop posted the price of a cone as 3 packs of

TABLE 30.1
The Unit of Account Function of Money Simplifies Price Comparisons

Good	Price in money units	Price in units of another good
Movie	$6.00 each	2 six-packs of soda
Soda	$3.00 per six-pack	2 ice-cream cones
Ice cream	$1.50 per cone	3 packs of jelly beans
Jelly beans	$0.50 per pack	2 cups of coffee
Coffee	$0.25 per cup	1 local phone call

Money as a unit of account: One movie costs $6 and one cup of coffee costs 25¢, so one movie costs 24 cups of coffee ($6.00 ÷ 25¢ = 24).

No unit of account: You go to a movie theater and learn that the price of a movie is 2 six-packs of soda. You go to a candy store and learn that a pack of jelly beans costs 2 cups of coffee. But how many cups of coffee does seeing a movie cost you? To answer that question, you go to the convenience store and find that a six-pack of soda costs 2 ice-cream cones. Now you head for the ice-cream shop, where an ice-cream cone costs 3 packs of jelly beans. Now you get out your pocket calculator: 1 movie costs 2 six-packs of soda, or 4 ice-cream cones, or 12 packs of jelly beans, or 24 cups of coffee!

jelly beans, and if the candy store priced a pack of jelly beans as 2 cups of coffee! Now how much running around and calculating do you have to do to figure out how much that movie is going to cost you in terms of the soda, ice cream, jelly beans, or coffee that you must give up to see it? You get the answer for soda right away from the sign posted on the movie theater, but for all the other goods you're going to have to visit many different stores to establish the price of each commodity in terms of another and then calculate prices in units that are relevant for your own decision. Cover up the column labeled "price in money units" in Table 30.1 and see how hard it is to figure out the number of local phone calls it costs to see one movie. It's enough to make a person swear off movies! How much simpler it is for everyone to express their prices in terms of dollars and cents.

Store of Value

Any commodity or token that can be held and exchanged later for goods and services is called a *store of value*. Money acts as a store of value. If it did not, it would not be acceptable in exchange for goods and services. The more stable the value of a commodity or token, the better it can act as a store of value, and the more useful it is as money. There are no stores of value that are completely safe. The value of a physical object, such as a house, a car, or a work of art, fluctuates over time. The value of commodities and tokens used as money also fluctuate, and when there is inflation, they persistently fall in value.

The objects used as money have evolved over many centuries. We can identify four main forms of money:

- Commodity money
- Convertible paper money
- Fiat money
- Deposit money

Commodity Money

A physical commodity that is valued in its own right and is also used as a means of payment is **commodity money**. An amazing array of items have served as commodity money at different times and places, four of which were described in the chapter opener. But the most common commodity monies have been coins made from metals such as gold, silver, and copper. The first known coins were made in Lydia, a Greek city-state, at the beginning of the seventh century B.C.

There are two problems with commodity money. First, there is a constant temptation to cheat on the value of the money. Two methods of cheating have been commonly used: clipping and debasement. *Clipping* is reducing the size of coins by an imperceptible amount, thereby lowering their metallic content. *Debasement* is the creation of a coin that has a lower silver or gold content (the balance being made up of some cheaper metal).

The temptation to lower the value of commodity money led to a phenomenon known as Gresham's Law, after the sixteenth century English financial expert Sir Thomas Gresham. **Gresham's Law** is the tendency for bad (debased) money to drive good (not debased) money out of circulation. To see why Gresham's Law works, suppose you are paid with two coins, one debased and the other not. Each coin has the same value if you use it to buy goods. But the good coin is more valuable as a commodity than it is as money. You will not, therefore, use the good coin as money. You will always pay with a debased coin (if you have one). In this way, bad money drives good money out of circulation.

The second problem with commodity money is its opportunity cost. Gold and silver used as money could be used to make jewelry or ornaments instead. This opportunity cost creates incentives to find alternatives to the commodity itself for use in the exchange process. One such alternative is a paper claim to commodity money.

Convertible Paper Money

When a paper claim to a commodity circulates as a means of payment, that claim is called **convertible paper money**. The first known example of paper money occurred in China during the Ming dynasty (A.D. 1368–1399). This form of money was also used extensively throughout Europe in the Middle Ages.

The inventiveness of goldsmiths and their clients led to the widespread use of convertible paper money. Because gold was valuable, goldsmiths had well-guarded

safes in which to keep their own gold. They also rented space to artisans and others who wanted to put their gold in safekeeping and issued a receipt entitling them to reclaim their "deposits" on demand. (These receipts were similar to the coat check token that you get at a theater or museum.) Because the gold receipts entitled the holder of the receipt to reclaim gold, they were "as good as gold" and circulated as money. When Isabella bought some land from Henry, she simply gave him a gold receipt for the appropriate value. The gold receipt was convertible paper money. It was *backed* by the gold held by a goldsmith and was *convertible* into commodity money—gold.

Fractional Backing—The Origin of Banking

Once a convertible paper money system is operating and people are using paper claims to gold rather than gold itself as the means of payment, goldsmiths notice that their vaults are storing a lot of gold that is never withdrawn. This gives them a brilliant idea. Why not lend people gold receipts? The goldsmith can charge interest on the loan, and the loan is created just by writing on a piece of paper. As long as the number of such receipts created is not too large in relation to the stock of gold in the goldsmith's safe, the goldsmith is in no danger of not being able to honor his promise to convert receipts into gold on demand. The gold in the goldsmith's safe is a *fraction* of the gold receipts in circulation. By this device, *fractionally backed* convertible paper money was invented.

Between 1879 and 1933 the United States was on a **gold standard**, a monetary system with fractionally backed convertible paper in which a dollar could be converted into gold at a guaranteed value on demand. From 1933 until 1971 it was illegal for U.S. citizens to hold gold coins or ingots, but the U.S. Treasury stood ready to convert dollars into gold at $35 per ounce of gold for foreign central banks and foreign governments. In 1971, with the market price of gold far greater than $35 an ounce, the convertibility of the U.S. dollar into gold was finally abandoned.

Even with fractionally backed paper money, valuable commodities that could be used for other productive activities are tied up in the exchange process. There remains an incentive to find a yet more efficient way of facilitating exchange and of freeing up the commodities used to back the paper money. This alternative is fiat money.

Fiat Money

The term *fiat* means "let it be done" or "by order of the authority." **Fiat money** is an intrinsically worthless (or almost worthless) commodity that serves the functions of money. Some of the earliest fiat monies were the continental currency issued during the American Revolution and the "greenbacks" issued during the Civil War, which circulated until 1879. These early experiments with fiat money failed because prices increased rapidly and money lost its value. But despite this poor start, fiat money has become the main type of money used today.

The bills and coins that we use in the United States today—collectively known as **currency**—are examples of fiat money. They are money because the government declares them to be so with the words "This note is legal tender for all debts, public and private," which you can find printed on every dollar bill. Because of the creation of fiat money, people are willing to accept a piece of paper with a special watermark, printed in green ink, and worth not more than a few cents as a commodity, in exchange for $100 worth of goods and services. The small metal alloy disk that we call a quarter is worth almost nothing as a piece of metal, but it pays for a local phone call and many other small commodities. The replacement of commodity money by fiat money enables the commodities themselves to be used productively.

Deposit Money

In the modern world there is a fourth type of money: deposit money. **Deposit money** consists of deposits at banks and other financial institutions such as S&Ls. This type of money is an accounting entry in an electronic database in the banks' and other financial institutions' computers. It is money because it is used to settle debts. In fact, it is the main means of settling debts in modern societies. The owner of a deposit transfers ownership to another person simply by writing a check—an instruction to a bank—that tells the bank to change its database, debiting the account of one depositor and crediting the account of another.

We'll have more to say about deposit money shortly. But before doing so, let's look at the different forms of money and their relative magnitudes in the United States today.

Money in the United States Today

In the United States today, money consists of *currency* and *deposits* at banks and other financial institutions. There are different types of deposits and, as a result, different measures of money. The two main measures of money are known as **M1** and **M2**. M1 consists of currency and traveler's checks plus checking deposits owned by individuals and businesses. M1 does *not* include currency held by banks, and it does not include currency and checking deposits owned by the U.S. government. M2 consists of M1 plus saving deposits and time deposits. Time deposits are deposits that have a fixed term to maturity. (There is a third official definition of money, M3, which consists of M2 plus large-scale time deposits and term deposits.) Table 30.2 gives the definitions of M1 and M2.

TABLE 30.2
Two Measures of Money 

M1	■ Currency held outside banks
	■ Traveler's checks
	■ Checking deposits at commercial banks
	■ Checking deposits at S&Ls, savings banks, and credit unions
M2	■ M1
	■ Savings deposits
	■ Small time deposits
	■ Money market mutual funds and other deposits

M1 consists of currency (pennies, nickels, dimes, and quarters and Federal Reserve bank notes, that is, dollar bills of various denominations) and checking deposits owned by individuals and businesses. The currency component of M1 is only that held outside the banks. Currency held by banks and checking accounts owned by the U.S. government are not part of M1. M2 is M1 plus savings deposits, time deposits, and money market mutual funds.

Are M1 and M2 Really Money? Money is the means of payment. So the test of whether an asset is money is whether it serves as a means of payment. Currency passes the test. But what about deposits? Checking deposits are money because they can be transferred from one person to another by writing a check. Such a transfer of ownership is equivalent to handing over currency. Because M1 consists of currency plus checking deposits and each of these is a means of payment, *M1 is money*.

But what about M2? Some of the savings deposits in M2 are just as much a means of payment as the checking deposits in M1. You can use the ATM at the grocery store checkout or gas station and transfer funds directly from your saving account to pay for your purchase. But other saving deposits are not means of payment. These deposits are known as *liquid assets*. **Liquidity** is the property of being instantly convertible into a means of payment with little loss in value. Because most of the deposits in M2 are quickly and easily converted into currency or checking deposits, they are operationally similar to M1, but technically they are not money.

Deposits Are Money but Checks Are Not In defining money, we included, along with currency, deposits at banks and other financial institutions. But we did not count the checks that people write as money. Why are deposits money and checks not?

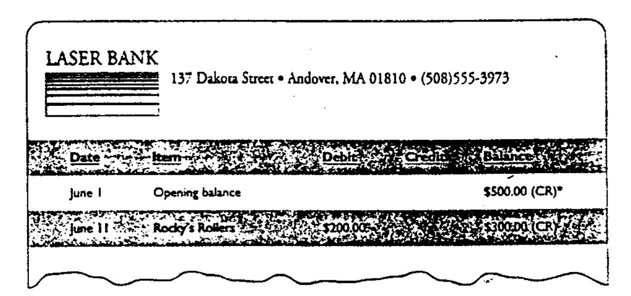
To see why deposits are money but checks are not, think about what happens when Colleen buys some roller blades for $200 from Rocky's Rollers. When Colleen goes to Rocky's shop, she has $500 in her deposit account at the Laser Bank. Rocky has $1,000 in his deposit account—at the same bank, as it happens. The total deposits of these two people is $1,500. On June 11, Colleen writes a check for $200. Rocky takes the check to Laser Bank right away and deposits it. Rocky's bank balance rises from $1,000 to $1,200. But when the bank credits Rocky's account with $200, it also debits Colleen's account $200, so her balance falls from $500 to $300. The total deposits of Colleen and Rocky are still the same as before: $1,500. Rocky now has $200 more and Colleen has $200 less than before. These transactions are summarized in Table 30.3.

This transaction has transferred money from Colleen to Rocky. The check itself was never money. There wasn't an extra $200 worth of money while the check was in circulation. The check was an instruction to the bank to transfer money from Colleen to Rocky.

In the example, Colleen and Rocky use the same bank. The same story, but with additional steps,

TABLE 30.3

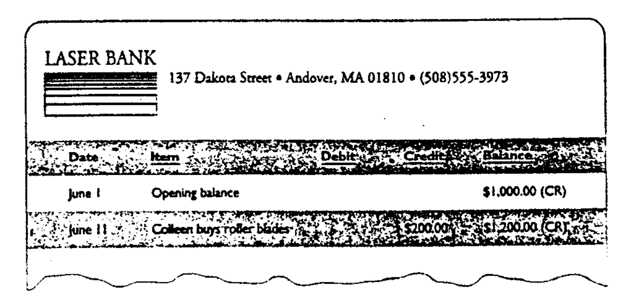
Paying by Check



LASER BANK
137 Dakota Street • Andover, MA 01810 • (508)555-3973

Date	Item	Debit	Credit	Balance
June 1	Opening balance			$500.00 (CR)*
June 11	Rocky's Rollers	$200.00		$300.00 (CR)

Colleen's checking deposit account



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Date	Item	Debit	Credit	Balance
June 1	Opening balance			$1,000.00 (CR)
June 11	Colleen buys roller blades		$200.00	$1,200.00 (CR)

Rocky's Rollers' checking deposit account

*CR means "credit": The bank owes the depositor.

describes what happens if Colleen and Rocky use different banks. Rocky's bank credits the check to Rocky's account and then takes the check to a check-clearing center. The check is then sent to Colleen's bank, which pays Rocky's bank $200 and then debits Colleen's account $200. This process can take a few days, but the principles are the same as when two people use the same bank.

Credit Cards Are Not Money So checks are not money. But what about credit cards? Isn't having a credit card in your wallet and presenting the card to pay for your roller blades the same thing as using money? Why aren't credit cards somehow valued and counted as part of the quantity of money?

When you pay by check, you are frequently asked to prove your identity by showing your driver's

THÉMIS ÉCONOMIE
SOUS LA DIRECTION DE M. DUVERGER ET J.-CL. CASANOVA

DENISE FLOUZAT
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Panthéon-Sorbonne

IV - *Economie contemporaine*

2 / Les phénomènes monétaires



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Chapitre Premier

LE CONCEPT DE MONNAIE

Une première définition peut servir de point de départ à l'analyse du concept de monnaie, concept qui sera progressivement approfondi au long de ce chapitre. La monnaie est constituée par l'ensemble des moyens de paiement directement utilisables pour effectuer des règlements sur les marchés des biens et des services, c'est-à-dire par l' « ensemble des actifs acceptés partout, par tous et en tous temps pour le règlement des dettes issues de l'échange »[1].

La monnaie apparaît donc comme un actif qui peut être détenu, échangé, prêté, conservé. Ce n'est pas un bien de consommation puisqu'il ne procure pas directement de satisfaction. La monnaie ne constitue pas non plus du capital technique[2], car elle ne peut être incluse dans une combinaison productive de facteurs de production. La monnaie doit être acceptée par tous, partout et en tous temps : il est nécessaire d'ajouter que, pour être acceptée par tous, la valeur de la monnaie doit être fondée sur la confiance qu'ont en elle ses porteurs. Cette confiance ne se manifestera qu'au sein d'une communauté monétaire qui est généralement la nation[3]. Cependant certains instruments monétaires peuvent être utilisés hors des frontières et acquièrent les caractères de monnaie internationale (or, dollars).

La monnaie apparaît donc comme un bien spécifique, recherché pour lui-même en raison des fonctions essentielles qu'il remplit. On distingue traditionnellement trois fonctions de la monnaie : elle est un intermédiaire des échanges, une unité de mesure des valeurs, un instrument de réserve de valeur. L'analyse moderne a montré que ces trois fonctions s'expliquaient par une propriété essentielle de la monnaie : elle constitue la liquidité par excellence.

▸ *La monnaie intermédiaire des échanges.* — La monnaie évite le troc, elle assure la rupture du troc en deux échanges indépendants. La réalisation d'une opération de troc exige en effet que deux conditions soient réunies :

- il existe deux contre-prestations simultanées et complémentaires quant aux désirs des deux coéchangistes ;
- les deux contre-prestations sont estimées à la même valeur par les deux coéchangistes.

1. A. Chaîneau, *Mécanismes et politique monétaires*, PUF, 1971, 10e édition, 1990.

2. Toutefois pour le gestionnaire d'entreprise, la détention d'une quantité minimale de monnaie (incluse dans le fonds de roulement) apparaît nécessaire.

3. R. Barre, *Economie politique*, coll. « Thémis », PUF, t. 2 : « La monnaie peut se définir comme un bien d'échange généralement accepté au sein d'une communauté de paiement. »

Le troc a donc pour inconvénient de limiter les échanges et de rendre impossible la formation d'un ensemble de prix, c'est-à-dire d'une échelle de valeurs qui facilite l'évaluation des biens. Le recours à un bien intermédiaire, la monnaie, permet de dissocier les deux contre-prestations simultanées du troc (achat-vente) et instaure deux transactions séparées. Deux opérations successives sont alors réalisées : vente d'un bien offert contre de la monnaie, puis échange de la monnaie ainsi obtenue contre l'achat d'un autre bien. Les usagers de la monnaie peuvent estimer à certaines périodes de troubles monétaires qu'elle constitue un mauvais intermédiaire des échanges et revenir à la technique du troc (il en fut ainsi pendant la seconde guerre mondiale dans les pays occupés et immédiatement après la seconde guerre mondiale). Pour que la monnaie remplisse cette première fonction, il est, en effet, nécessaire qu'elle assure correctement les deux fonctions suivantes.

▶ *La monnaie mesure des valeurs.* La monnaie est une unité de compte qui permet de mesurer et de comparer des biens et des denrées hétérogènes. Elle constitue un instrument universel de mesure applicable aux biens, aux services et aux droits, qu'ils soient actuels ou passés ou à venir. La valeur des biens s'exprime dans leur prix en monnaie ou encore dans le rapport d'une quantité de monnaie à une quantité de biens. L'usage de la monnaie permet la détermination d'une échelle générale des prix, c'est-à-dire des rapports d'échange comparables alors que des trocs ne donnent lieu qu'à des taux de change particuliers, sans rapport entre eux, faute d'une mesure commune.

▶ *La monnaie, instrument de réserve de valeur.* — La monnaie doit assurer la permanence des valeurs mesurées. La valeur représentée par une certaine quantité de monnaie doit toujours être la même quel que soit le moment auquel la monnaie est employée. Cette qualité est très importante pour les emplois de la monnaie qui se déroulent dans le temps[1]. L'épargne (qui est une consommation différée) est fondée sur l'assurance que la valeur des biens à la consommation auxquels on renonce pourra être retrouvée dans son intégralité dans l'avenir, au moment où l'utilisation des fonds mis en réserve sera décidée[2]. En sens inverse, l'emprunteur doit avoir la garantie de ne pas avoir à rem-

1. Les fluctuations du pouvoir d'achat de la monnaie altèrent considérablement la qualité de la monnaie en tant qu'instrument de réserve de valeur.

2. Cependant la nécessité d'une épargne de précaution conduit les épargnants à épargner même en période de dépréciation de la monnaie



bourser une valeur supérieure à celle qu'il a obtenue. La monnaie constitue ainsi, selon l'expression de Keynes, « un lien entre le présent et l'avenir ».

▸ *La monnaie constitue la liquidité par excellence.* — L'analyse moderne s'efforce de dégager cette propriété essentielle de la monnaie, celle qui est sous-jacente aux trois fonctions précédemment décrites et qui permet de les expliquer. Lorsque la monnaie est utilisée soit comme intermédiaire de l'échange, soit comme unité de valeur, soit comme réserve de valeur, elle possède une qualité constante qui est d'être immédiatement convertible en n'importe quel bien ou service. La monnaie offre à celui qui la possède une grande possibilité de choix, elle est dite « porteuse de choix » : la monnaie permet d'acquérir n'importe quel bien ou service, n'importe quand. Ce pouvoir de choix est mis en évidence, dans l'analyse moderne, par la notion de *liquidité*. Tous les biens, sauf la monnaie, ont une destination particulière qui leur confère une relative rigidité ; au contraire, la monnaie n'a aucune destination particulière, aucune rigidité, elle constitue la liquidité par excellence.

Appliquée à un actif ou à un portefeuille, la liquidité caractérise le degré de certitude qu'a son détenteur de disposer facilement à tout moment d'une somme au moins égale à sa valeur nominale. Cette définition est en accord avec la constatation : les actifs sont d'autant plus liquides qu'ils sont plus certainement réalisables à bref délai et sans perte.

Il existe des degrés dans la liquidité. L'analyse économique distingue trois catégories de liquidités :

- les liquidités *primaires*, c'est-à-dire les actifs qui sont parfaitement liquides, ils permettent d'effectuer des paiements immédiats. Il en est ainsi actuellement des billets de banque, des monnaies divisionnaires (espèces) et des dépôts à vue circulant principalement sous forme de chèques ou de virements (monnaie scripturale)[1] ;
- les liquidités *secondaires* sont constituées par des actifs non immédiatement liquides mais qui peuvent être convertis très rapidement en monnaie (ou liquidités primaires) sans risque de perte en capital. On dit qu'ils sont monétisables. Il s'agit des dépôts à terme ainsi que des avoirs financiers à échéance proche et monétisables sans pertes ni risques ;

1. Cf. pour l'analyse de ces termes les p. 28 et s.

les liquidités *tertiaires* possèdent un degré de liquidité encore moins élevé, elles sont constituées par des avoirs financiers dont l'échéance n'est qu'à moyen ou long terme. Leur transformation en liquidités primaires ne peut s'opérer que par une vente comportant des risques dans le cas de baisse du prix de ces avoirs financiers. Deux catégories de titres constituent les liquidités tertiaires : les valeurs mobilières privées (actions et obligations), les valeurs mobilières publiques (emprunts de l'Etat, des collectivités publiques, des entreprises publiques).

Seules, les liquidités primaires constituent la monnaie *stricto sensu* en raison de leur caractère de liquidité parfaite. Mais les liquidités secondaires sont dites « monétisables », car elles sont facilement transformables en monnaie. Or, la frontière délimitant les opérations monétaires apparaît de plus en plus franchissable, des formules de placement à court terme permettant à l'épargne liquide d'être, au gré de leurs titulaires, transformée en monnaie. Des innovations financières ont accru depuis 1985 le nombre de ces formules. Bien plus, certaines d'entre elles tendent à établir une certaine confusion entre l'épargne liquide et les valeurs mobilières (liquidités tertiaires). Toutefois, pour plus de clarté, ne sont traités dans ce premier chapitre que les différents types de monnaie *stricto sensu* ainsi que l'épargne liquide, avant de présenter les nouveaux agrégats monétaires correspondants.

1 / La monnaie, instrument de paiement (monnaie *stricto sensu*)

Deux critères de classification permettent de dégager les différents types de monnaie :

- selon les *formes* de la monnaie, formes qui ont connu une évolution retracée par l'histoire monétaire ;
- selon la ***nature de l'établissement émetteur de monnaie***, cette dernière classification relève d'une optique différente de la précédente : elle permet de donner une définition institutionnelle de la monnaie dans le contexte du système monétaire actuel.

I / LES FORMES DE LA MONNAIE ET LEUR ÉVOLUTION HISTORIQUE

Jusqu'à une période récente, les différents types de monnaie étaient analysés à travers leur évolution historique. Celle-ci semblait montrer une tendance à la dématérialisation de la monnaie, tendance résultant du remplacement de la monnaie métallique par la monnaie de papier, puis de la prédominance progressive de la monnaie scripturale et, enfin, de l'intervention récente des cartes de crédit. Une analyse plus fine conteste cette évolution[1], mais le classement des différents types de monnaie en *monnaie métallique, monnaie de papier, monnaie scripturale* est néanmoins exposé dans ce paragraphe afin de caractériser plus aisément chacun d'eux

A / Monnaie métallique

Les premiers instruments de paiement ont été constitués par un bien matériel (barre de sel, têtes de bétail, etc.) reconnu par tous comme pouvant exercer les fonctions de la monnaie; puis, la monnaie a pris la forme de métaux précieux. Ceux-ci présentaient l'avantage d'être rares, inaltérables, faciles à transporter et aisément divisibles.

La monnaie métallique a connu trois grandes étapes :

▶ *Monnaie pesée.* — C'est à Babylone et en Egypte qu'apparut la monnaie pesée sous forme de lingots encombrants dont il fallait mesurer le poids de métal qui servait au paiement lors de chaque transaction.

▶ *Monnaie comptée.* — Vers 800 avant J.-C. les lingots furent divisés en pièces, invention qui connut immédiatement une grande diffusion.

▶ *Monnaie frappée.* — Les monnaies métalliques d'or, d'argent ou de bronze furent peu à peu frappées sous le contrôle d'autorités d'abord religieuses puis politiques qui garantissaient la valeur des pièces, c'est-à-dire le titre et le poids de métal qu'elles contenaient.

Alors que Rome avait réussi à faire prévaloir sa monnaie dans le bassin méditerranéen, au Moyen Age de très nombreuses monnaies locales furent frappées en Europe par les monarques, les princes et les abbayes. Les monarchies absolues qui s'instaurèrent à partir du XVI[e] siècle s'efforcèrent de concentrer progressivement entre leurs mains le privilège de la frappe des monnaies métalliques.

Une certaine unité du système monétaire européen se trouva assurée à travers ces évolutions historiques grâce à la dissociation entre monnaie de règlement et monnaie de

1. Cf. p. 38

compte. La valeur des différentes *monnaies de règlement* était exprimée dans une *unité de compte* abstraite (livre, pound, pfund). En France, le système de monnaie de compte ne changea pas de Saint Louis jusqu'à la Révolution de 1789 : il était constitué par la livre tournois divisée en vingt sous, chaque sou valant douze deniers. Le pouvoir politique pouvait réaliser des manipulations monétaires soit en diminuant la teneur des pièces en métal, soit en modifiant le taux de change de la monnaie de règlement en unités de compte.

La dualité monnaie de règlement et monnaie de compte fut supprimée par la loi du 7 germinal an XI (28 mars 1803), qui instituait une définition précise de l'unité monétaire française par un poids de métal. Celle-ci résultait de l'effort général entrepris sous la Révolution visant à définir par voie législative des unités pratiques de mesure (unités de longueur, de volume, de poids).

Le franc, au terme de la loi de germinal an XI (28 mars 1803), était défini à la fois par rapport à l'or et à l'argent. Ce système monétaire dit *bimétalliste* était d'ailleurs traditionnel en France. Dans le cadre de la loi de germinal, il présentait les caractéristiques essentielles suivantes :

— *Liberté de la frappe des monnaies :* tous les particuliers, toutes les sociétés, toutes les banques disposaient du droit d'apporter des lingots d'or ou d'argent à l'Hôtel des Monnaies et d'obtenir en échange des pièces d'or ou d'argent après déduction du coût de la frappe. L'intervention de l'Etat par l'intermédiaire d'une administration spécialisée, la Monnaie, se limitait à la vérification de la teneur en métal fin des pièces dont elle avait le monopole de fabrication. Dans ces conditions, les citoyens disposaient du droit absolu de transformer le métal précieux en pièces de monnaie sans autre coût que celui relatif aux frais causés par la transformation matérielle de lingots en pièces.

— *Pouvoir libératoire illimité des monnaies d'or et d'argent :* tout acheteur, tout débiteur pouvait se libérer à son gré au moyen de pièces d'or ou d'argent. Ainsi, seules les pièces d'or et d'argent avaient *cours légal*[1].

— *Rapport légal entre l'or et l'argent :* ce rapport, bien que non indiqué dans la loi de germinal, en était la conséquence : il était d'une unité d'or pour 15,5 unités d'argent[2].

1. Les billets de banque étaient soumis au régime du *cours libre*, les particuliers et les caisses publiques n'étaient pas obligés de les accepter en paiement. Ils reçurent cours légal temporairement de 1848 à 1850, puis définitivement à partir de 1870.

2. Le franc aux termes de la loi de germinal était défini par la valeur de 5 g d'argent. Un kilogramme d'argent représentait donc 200 pièces de 1 F (200 F). Le franc était défini aussi par rapport à l'or puisqu'il était précisé qu'il sera frappé des pièces de 20 F en or, à la taille de 155 pièces au kilogramme. Ce qui signifiait que 1 kg d'or valait 3 100 F alors que le kilogramme d'argent valait 200 F. La relation de valeur entre l'or et l'argent résultait donc du rapport de valeur entre 1 kg d'or et 1 kg d'argent, soit : 3 100 : 200 = 15,5.

Dans la pratique, le système bimétalliste s'est heurté à une difficulté : le rapport légal établi entre les deux métaux a cessé de coïncider avec le rapport commercial, résultant des cours de l'or et de l'argent déterminés par le marché libre. Supposons que le rapport commercial devienne de 1 à 16 (contre un rapport légal de 1 à 15,5), l'argent est déprécié par rapport à l'or, celui-ci apparaît alors comme une « bonne » monnaie. Il s'ensuit une thésaurisation de l'or et l'argent tend à circuler seul. Autrement dit, la mauvaise monnaie (l'argent dans l'exemple retenu) chasse la bonne (l'or). Cette constatation est appelée souvent loi de Gresham, nom d'un chancelier de l'Echiquier britannique qui l'aurait découverte dès le XVI[e] siècle.

C'est en 1850 qu'intervint la première crise du système bimétalliste ; elle était due à un excès de la production d'or à la suite des découvertes de mines d'or en Australie et en Californie. L'argent fait prime sur l'or et devenant « bonne monnaie » se raréfie. Pour remédier à cette pénurie, la France, la Belgique, l'Italie, la Suisse et la Grèce constituèrent une Union monétaire latine. Ces pays décidèrent d'abaisser le titre des pièces d'argent, les transformant par cette réduction de leur valeur commerciale en « mauvaise monnaie ». En même temps, le pouvoir libératoire et la frappe libre illimitée furent retirés aux pièces d'argent à l'exception de la pièce de 5 F.

Le remboursement des billets par la Banque de France ne s'effectuait donc plus qu'en or ou en pièces d'argent de 5 F. La France adoptait ainsi un bimétallisme dit boiteux.

A partir de 1867 ce fut au tour de l'or de faire prime sur l'argent. Devant la disparition de l'or qui s'ensuivit, la France décida, le 5 août 1876, de suspendre la frappe libre des pièces de 5 F en argent tout en leur conservant pouvoir libératoire illimité.

Le mauvais fonctionnement du système bimétalliste a déterminé peu à peu son abandon. On peut dire qu'à partir de 1876 la France avait adopté comme l'Angleterre un régime monométalliste or qui durera jusqu'en 1914. A la veille de la première guerre mondiale régnait un système monétaire international dit de l' « étalon-or » sous l'égide de la Grande-Bretagne réglementé par la politique monétaire et les interventions de la Banque d'Angleterre.

La guerre de 1914 conduisit les pouvoirs publics à décréter le cours forcé des billets de banque[1] ainsi qu'à faire appel au civisme de la population pour qu'une partie importante de l'or en circulation soit apportée aux caisses publiques et échangée contre des billets. Les pièces d'or cessèrent d'être utilisées pour les transactions et furent remplacées par la monnaie de papier et la monnaie scripturale.

1. Ceux-ci cessèrent d'être convertibles en or auprès de la Banque de France, cf p. 27.

Depuis cette époque l'or conserve cependant deux usages :

— c'est un instrument de placement (en France en particulier) et de spéculation lorsque les anticipations des sujets économiques portent ceux-ci à utiliser l'or comme valeur refuge ;
— c'est un moyen de règlement des soldes débiteurs des échanges internationaux (or dit *monétaire*)[1].

Il faut signaler, en outre, que des monnaies métalliques circulent encore au plan national : il s'agit des monnaies de billon, ou monnaies divisionnaires, servant d'appoint pour les paiements de petites sommes.

B / Billets de banque ou monnaie de papier

Les billets de banque ont subi une évolution marquée par les trois étapes suivantes :

1 / *Le billet de banque représentatif de métaux précieux*. — A l'origine, le billet de banque était un certificat d'or, représentant une certaine quantité de métal déposée dans une banque. Dans ce cas, les billets de banque étaient entièrement couverts par la valeur de l'or déposée en banque.

2 / *Le billet de banque convertible* ou *monnaie fiduciaire*. — En 1656, le fondateur de la banque de Suède, Palmstruck, prit l'initiative de combiner deux opérations jusque-là distinctes :

— d'une part, l'émission de certificats d'or (billets de banque représentatifs d'or) ;
— d'autre part, l'escompte des effets de commerce.

Les effets de commerce sont des titres de crédit utilisés dans les transactions commerciales constatant l'obligation de payer une somme d'argent à une époque donnée (crédit à court terme). Parmi ces effets, la lettre de change ou traite contient un ordre du créancier à son débiteur de payer une certaine somme à un tiers désigné ou à son ordre à une certaine date.

Le bénéficiaire de la lettre de change peut avoir besoin de liquidité avant l'échéance, il s'adresse alors à un banquier qui lui achète la traite et lui remet immédiatement des espèces métalliques moyennant un intérêt correspondant au temps qui reste à courir jusqu'à l'échéance de la traite. A l'échéance, le banquier présente la traite au débiteur qui doit lui rembourser sa dette. L'opération d'achat de la créance par le banquier s'appelle l'escompte[2]. L'intérêt perçu à cette occasion est le taux de l'escompte.

1. Cf. 2e partie, chap. VII : « Les conditions d'utilisation de l'or monétaire »
2. Cf. p. 114.

Palmstruck proposa au créancier qui escompte des lettres de change au bénéficiaire de remettre non plus des espèces métalliques, mais des billets comportant l'engagement de rembourser au porteur du billet, en monnaie métallique légale, la somme inscrite sur le billet.

Le billet de banque créé par Palmstruck présentait des avantages pour les particuliers : ceux-ci préféraient le détenir plutôt qu'un effet de commerce, car le billet a une valeur invariable (il ne subit pas d'escompte), il est anonyme, transmissible de main à main, il est payable à vue (il peut être remboursé à tout moment en métal). Il est apparu rapidement que l'émission de billets présentait aussi des avantages pour les banquiers. Ceux-ci prirent l'habitude de mettre en circulation un volume de billets supérieur à l'encaisse métallique. Les banquiers avaient, en effet, constaté que les porteurs de billets ne réclamaient pas tous en même temps le remboursement en métal ; ils ont alors estimé ...'ils pouvaient prendre le risque de ne plus conserver la couverture ...le en métal des billets émis.

...illet de banque est devenu ainsi une véritable monnaie distincte ...onnaie métallique. Le billet de banque ne tire plus sa valeur du stock de métal qu'il représente, mais de la confiance que son porteur accorde à la banque en ce qui concerne le remboursement du billet en métal : le billet de banque convertible peut donc être qualifié de *monnaie fiduciaire*.

Deux thèses relatives aux conditions de l'émission des billets se sont affrontées vers le milieu du XIX[e] siècle : celle du *currency principle* et celle du *banking principle*. Les partisans du *currency principle*, soucieux d'éviter l'inflation de monnaie de papier, soutenaient que le montant des billets en circulation dans le public doit être réglé d'après celui de l'encaisse métallique de la banque. Les défenseurs du *banking principle*, eux, se prononçaient pour la liberté d'émission. Aucune de ces deux thèses n'est entièrement satisfaisante : la première est d'une rigueur trop absolue parce qu'elle limite l'accroissement du volume de monnaie cependant nécessaire à l'expansion économique ; la seconde peut conduire à des imprudences dans l'émission, les porteurs risquant, en cas de « rush » des déposants, de ne pas obtenir le remboursement de leurs billets en or. Une réglementation était donc nécessaire, elle devait donner aux porteurs de billets la certitude d'être remboursés en or mais assurer aussi une certaine élasticité à la circulation des billets.

En France, cette réglementation porta d'abord sur la centralisation de l'émission : il fut attribué à une Banque centrale le privilège de l'émission (le monopole de celui-ci a été définitivement confié à la Banque de

France en 1848). Puis la réglementation de l'émission des billets fut assurée par deux systèmes successivement mis en pratique :

— *système du plafond :* le gouvernement fixait un montant maximum à l'émission de billets, ce système fut adopté de 1848 à 1850 puis de 1870 à 1928. Le montant du plafond se trouvait relevé par le gouvernement en fonction des besoins de l'économie. Des relèvements très importants eurent lieu notamment pour financer les dépenses de la guerre de 1914-1918 ;
— *système du pourcentage minimum adopté entre 1928 et 1939 :* le gouvernement a décidé que la Banque de France devait conserver une encaisse métallique au moins égale à 35 % de ses engagements à vue (billets en circulation et dépôts inscrits à son passif).

3 / *Le billet de banque inconvertible ou papier-monnaie.* — Les porteurs de billets peuvent être tentés, en certaines circonstances politiques graves (guerre, révolution), de réclamer tout le remboursement de leurs billets en métal. La valeur des billets mis en circulation étant supérieure à la valeur du stock de métal, cette demande massive de convertibilité conduirait la banque d'émission à la faillite. Pour éviter celle-ci, l'Etat fait décider le *cours forcé* des billets, c'est-à-dire qu'il autorise l'Institut d'émission à ne plus les échanger contre des espèces métalliques. Le cours forcé implique que les billets acquièrent *cours légal* en ce sens que les caisses publiques et les particuliers se trouvent dans l'obligation d'accepter les billets au même titre que les espèces métalliques.

Le cours forcé fut décrété en France lors de la Révolution de 1848 qui avait déclenché une panique chez les déposants ; la situation monétaire étant considérée comme redevenue normale en 1850, une loi du 6 août supprima à la fois le cours forcé et le cours légal des billets de banque. La guerre de 1870 provoquant dans le public des réactions analogues à celles qu'avait entraînées la Révolution de 1848, une loi du 12 août 1870 rétablit le cours forcé ainsi que le cours légal des billets. La loi du 1er janvier 1878 supprima le cours forcé des billets de banque mais laissa subsister leur cours légal : les billets de banque se trouvèrent ainsi placés définitivement sur le même plan que les espèces puisque les caisses publiques et les particuliers furent obligés de les accepter en paiement.

Le cours forcé fut de nouveau décidé au début de la première guerre mondiale. La grave inflation consécutive au conflit empêcha le retour à la convertibilité dans l'immédiat après-guerre. Ce n'est qu'en 1928 que fut rétablie une convertibilité partielle du franc en or en même temps qu'était reconnue la nécessité de stabiliser le franc : la loi du 25 juin 1928, prise à l'instigation de Poincaré, comportait une dévaluation considérable du franc par rapport à la définition du franc germinal encore en vigueur en 1914 ; elle s'inspirait aussi du désir du retour à la

convertibilité du franc en or[1]. Néanmoins, la convertibilité du billet en pièces d'or était remise à une date ultérieure, à préciser par décret[2] ; la convertibilité du billet ne pouvait s'effectuer qu'en lingots[3] dont le poids minimum était fixé à 12 kg (correspondant à une valeur de 215 000 F), c'est dire que peu de particuliers pouvaient utiliser cette nouvelle forme de convertibilité qui fut surtout adoptée pour des placements et éventuellement pour des règlements extérieurs.

Le retour à la convertibilité partielle ne fut que de courte durée ; huit ans plus tard, le 25 septembre 1936, le cours forcé fut à nouveau instauré et ne devait plus cesser de rester en vigueur. En décidant le cours forcé, la France ne faisait d'ailleurs que suivre la Grande-Bretagne qui avait pris la même disposition dès 1931.

L'évolution du régime du billet de banque fut achevée avec la disposition fixée par décret-loi en date du 1er septembre 1939 qui supprimait la règle du pourcentage de couverture des billets sans rétablir le plafonnement de leur émission. Le montant de l'émission de billets ne se trouvait désormais plus limité par des règles spécifiques. Il dépend dès lors d'abord des besoins des agents économiques, mais aussi de la politique monétaire pratiquée par la Banque de France et d'une façon plus large par les autorités monétaires.

Dans cette ultime étape, le billet ne tire plus sa valeur ni d'une contrepartie en métal, ni de la confiance accordée à la Banque en ce qui concerne la convertibilité en métal, mais du fait qu'il est accepté par tous les sujets économiques comme moyen de paiement.

Le billet privé de son support métallique est devenu du papier-monnaie.

C / Monnaie scripturale ou monnaie de banque

La monnaie scripturale ainsi dénommée parce qu'elle est inscrite sur les livres de certaines institutions financières est apparue en même temps que les premières banques, elle a donc précédé les billets de banque dont l'invention ne date que du XVIIe siècle. Ce n'est cependant qu'à une

1. Le franc germinal an XI était égal à 322,5 mg d'or au titre de neuf cent millièmes de fin, le franc Poincaré ne vaut plus que 65,5 mg d'or, il ne vaut donc plus qu'environ un cinquième du franc germinal, la dépréciation est des quatre cinquièmes.

2. Ce décret ne fut jamais pris : la circulation des pièces d'or a donc cessé définitivement, en France, en 1914.

3. La convertibilité en pièces d'or est la caractéristique du régime monétaire dit *Gold Specie Standard*, la convertibilité en lingots celle du régime appelé *Gold Bullion Standard*, cf. 2e partie, chap. IV : « Le système monétaire international ».

période récente que s'est effectuée la diffusion de la monnaie scripturale dans le public en même temps que se multipliaient et se diversifiaient les échanges. Le développement de la monnaie scripturale s'explique par des raisons de commodité et de sécurité : commodité des règlements effectués par jeux d'écriture sans exiger le déplacement du débiteur ou du créancier, sécurité des règlements car l'utilisation de la monnaie scripturale rend leur preuve facile grâce à la comptabilité des institutions financières et évite les dangers de perte et, sous certaines conditions, de vol.

Pour constituer un moyen de paiement commode et sûr, la monnaie scripturale doit remplir des conditions quant à sa composition et quant aux instruments qui assurent sa circulation.

a / COMPOSITION DE LA MONNAIE SCRIPTURALE. — La monnaie scripturale devant se trouver à la disposition immédiate de ses propriétaires est constituée par des dépôts à vue ou soldes créditeurs à vue susceptibles de circuler. En France, le privilège de gérer ces dépôts à vue est réservé :

- aux établissements de crédit bancaire (cf. p. 154) ;
- aux centres de chèques postaux (CCP) : le Trésor, c'est-à-dire l'Etat dans sa fonction financière, ouvre des guichets dans les bureaux de poste, guichets auprès desquels les particuliers et les entreprises peuvent effectuer des dépôts à vue[1] ;
- au Trésor public directement dont les comptables jouent un rôle semblable à celui des banquiers, quoique très limité[2] ;
- aux caisses d'épargne : le décret du 12 janvier 1978 autorise l'ouverture de comptes de dépôts non productifs d'intérêt permettant des opérations de paiement et de recouvrement. Les carnets de chèques correspondants sont accompagnés d'une carte de garantie impliquant l'engagement par les caisses de payer tout chèque égal ou inférieur à 500 F.

En fait, la plus large partie de la monnaie scripturale est gérée par les Banques et les CCP.

Ce ne sont pas tous les dépôts qui constituent la monnaie scripturale. Il existe, en effet, deux catégories de dépôts : les dépôts à vue et les dépôts à terme.

1. L'organisation du service des chèques postaux et des comptes courants postaux sous l'autorité du ministre des PTT a été effectuée par une loi du 7 janvier 1918.
2. Il en est ainsi des trésoriers-payeurs généraux et des percepteurs.

1 / *Dépôts à vue.* — Ces dépôts sont dits « à vue » parce que les retraits se font sans préavis « au vu de l'ordre ». Ils comprennent :

— *dans une première catégorie :*

- les comptes courants réservés généralement aux commerçants et aux entreprises industrielles et commerciales. Le compte courant peut être débiteur quand le banquier accorde à son client soit des facilités de caisse, soit un découvert autorisé ;
- les comptes de chèques ouverts plus généralement au nom des particuliers. Ils ne peuvent, en principe, être débiteurs.

Cette première catégorie de dépôts à vue peut circuler sous différentes formes (chèques, virements, prélèvements, etc.) : ce sont les dépôts à vue monétaires (DAV monétaires) ;

— *dans une deuxième catégorie :* les dépôts sur livrets, ceux-ci correspondent aux comptes sur livrets dans les banques, les caisses d'épargne et aux comptes d'épargne-logement[1].

Les dépôts à vue appartenant à cette deuxième catégorie ne permettent pas d'effectuer des paiements immédiats, ils doivent au préalable être transformés en billets ou être virés sur des comptes chèques ou des comptes courants.

2 / *Dépôts à terme.* — Ces dépôts étant confiés pour une période déterminée, ils ne peuvent circuler immédiatement.

On constate donc que, parmi ces différents types de dépôts, seuls les *dépôts à vue de la première catégorie ou DAV monétaires* circulent immédiatement. Autrement dit, ils sont les seuls qui présentent la qualité nécessaire pour pouvoir être considérés comme des actifs monétaires, *stricto sensu*, à savoir une parfaite liquidité.

b / CIRCULATION DE LA MONNAIE SCRIPTURALE. — Afin d'assurer la circulation de la monnaie scripturale, il existe divers instruments qui ont pour objet de matérialiser l'ordre donné par le débiteur au gestionnaire de son compte de verser un montant déterminé à lui-même ou à un tiers. On cite le chèque, les virements, l'avis de prélèvement, le titre universel de paiement, les cartes bancaires[2] :

- *Le chèque* est un ordre adressé par le titulaire d'un compte dans une banque ou au service des comptes chèques postaux de payer immé-

1. Cf. p. 46 et 47.
2. On ne traitera ici ni de la lettre de change ni du billet à ordre bien qu'ils constituent des instruments de transferts scripturaux car ils servent d'abord de supports au crédit comme en témoigne le fait qu'ils comportent un terme de paiement (cf. p. 114).

diatement au porteur du chèque la somme inscrite sur le chèque. Dans le cas d'un compte bancaire, le titulaire du compte est appelé *tireur*, la banque, *tiré*, et le porteur du chèque est le *bénéficiaire*.

Le bénéficiaire peut être :

— soit le titulaire du compte lui-même qui retire ainsi des fonds de son compte ;
— soit un tiers : le chèque est alors un instrument de paiement du tireur. Le créancier du tireur peut soit confier le chèque pour encaissement à sa banque ou au centre de chèques postaux, soit en toucher lui-même le montant en espèces. Cependant si le chèque est barré, il ne peut être réglé par la banque du tireur qu'à une banque, à un centre de chèques postaux ou à l'un de ses propres clients. Cette règle est instituée pour garantir le client contre les risques de perte ou de vol.

La figure 1 indique le circuit d'un chèque dans le cas — simple — où les comptes du bénéficiaire et du tireur sont tenus par les guichets de deux banques différentes installées dans une même ville. Si celle-ci a une certaine importance, elle possède une chambre de compensation, organisme au sein duquel les banques échangent entre elles les chèques qu'elles détiennent les unes sur les autres. Le circuit d'acheminement des chèques a été modifié et accéléré par introduction de l'informatique.

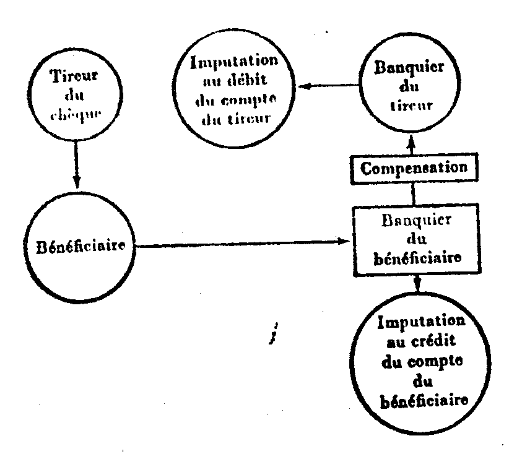


FIG. 1. — Cheminement du chèque

Source : Banque de France.

Le chèque peut servir d'instrument de règlement entre des porteurs successifs, le premier bénéficiaire transmettant le chèque à un autre bénéficiaire en endossant le chèque.

Malgré la commodité de son utilisation, la monnaie scripturale risque de susciter une défiance en raison de l'augmentation des chèques émis sans provision. Un dispositif est entré en vigueur le 1er janvier 1976. A l'issue d'une période d'application de quinze ans, les pouvoirs publics, en liaison avec la profession bancaire, ont estimé qu'il était nécessaire, tout en conservant le cadre général du dispositif légal, d'accroître l'efficacité du dispositif légal en le simplifiant et en améliorant l'information des utilisateurs (loi du 30 décembre 1991).

Avant de délivrer un premier carnet de chèques à son nouveau client, le banquier doit s'assurer que celui-ci n'est pas sous le coup d'une mesure d'interdiction d'émettre des chèques ; à cet effet, il lui est fait obligation de consulter le Fichier central des chèques (FCC) tenu par la Banque de France[1].

L'établissement tiré qui a refusé le paiement d'un chèque en raison du défaut de provision suffisante doit adresser au titulaire du compte une lettre d'injonction lui faisant défense d'émettre pendant un an des chèques, autres que des chèques certifiés ou des retraits directs de fonds, et l'invitant à restituer à tous les banquiers dont il est le client les formules de chèques en sa possession *(interdiction bancaire)*. Le tiré est tenu, en outre, d'adresser à la Banque de France un avis de non-paiement.

L'interdit bancaire peut, à tout moment, recouvrer la capacité d'émettre et d'obtenir sa radiation du fichier par la régularisation des chèques sans provision émis. Cette régularisation est assortie du paiement d'une pénalité libératoire (de 120 F par tranche de 1 000 F du montant nominal du chèque). La pénalité est doublée après trois levées d'interdiction observées sur le même compte au cours de la première année. En l'absence de régularisation de l'incident déclaré, l'émetteur demeure interdit bancaire et reste recensé pendant une durée de dix ans sur le Fichier central des chèques.

Enfin, la Banque de France offre aux bénéficiaires de chèques la possibilité d'être informés sur la régularité de l'émission de ceux-ci. Les bénéficiaires peuvent consulter le Fichier national des chèques irréguliers (FNCI) qui enregistre, outre les oppositions pour perte ou vol, les coordonnées des interdits de chéquiers et celles des comptes clôturés.

Au 31 décembre 1994, 1 540 000 personnes se trouvant sous le coup d'une interdiction d'émettre des chèques figuraient dans le Fichier central des chèques (FCC).

La loi du 30 décembre 1991 a abrogé le délit d'émission de chèques sans provision et fait essentiellement reposer la sanction sur un mécanisme d'interdiction dont la mise en œuvre est confiée à la profession bancaire.

Le rôle des tribunaux est ainsi limité à la sanction des infractions d'une gravité particulière :

- le retrait de la provision après émission du chèque avec intention de nuire aux droits d'autrui ;
- la contrefaçon et la falsification de chèques et de cartes de paiement ;
- les violations d'interdiction d'émettre des chèques.

1. Cf. p. 138

Les juridictions pénales appelées à juger des délits commis en matière de chèques peuvent prononcer à l'égard du condamné une interdiction d'émettre des chèques pendant une période d'un à cinq ans *(interdiction judiciaire)*. Ces décisions sont notifiées à la Banque de France qui les porte à la connaissance de tous les établissements bancaires.

• *Les virements*

Le virement permet d'effectuer des transferts de fonds entre comptes sur ordre du débiteur. Il consiste dans une écriture comptable débitant le compte d'un client d'un centre habilité à faire des règlements scripturaux pour créditer le compte d'un client du même centre (virement direct) ou d'un autre centre (virement indirect)[1].

L'utilisation du virement a été étendue à de nouvelles formes de règlement, la profession bancaire ayant décidé en 1993 de créer les virements suivants :

— *le virement référencé* qui permet à un client ayant de nombreux débiteurs d'associer à chaque règlement la référence client correspondante dans le cadre d'un paiement par la voie télématique ;
— *le virement spécifique orienté trésorerie* qui fournit pour les opérations d'un montant élevé un moyen de paiement automatisé permettant de connaître avec certitude la date d'inscription en compte des opérations de trésorerie ;
— *le virement d'origine extérieure* qui permet à une banque installée en France d'acheminer vers la banque du bénéficiaire un virement reçu de l'étranger et de communiquer à cette dernière des informations concernant notamment le taux de change appliqué.

• *L'avis de prélèvement* est utilisé par les créanciers qui encaissent périodiquement des sommes auprès de nombreux débiteurs : Electricité et Gaz de France, PTT pour le service du téléphone, percepteurs[2], etc. La banque ou le centre de chèques postaux doivent avoir reçu, au préalable, une autorisation du titulaire du compte permettant de régler son créancier au seul vu d'un avis émis par celui-ci.

Complétant l'avis de prélèvement un nouveau système de règlement est apparu au cours de ces dernières années :

— Le *titre universel de paiement* (TUP). Né d'une idée qui avait été utilisée pour le recouvrement de primes d'assurance, le TUP a été lancé

1. On rappelle que les centres habilités à effectuer des règlements scripturaux sont constitués le plus souvent par les banques ou les centres de chèques postaux mais aussi les caisses de Crédit agricole ou mutuel ainsi que par les comptes ouverts auprès des comptables publics du Trésor.

2. Expérience en cours de prélèvement automatique mensuel de l'impôt sur le revenu. Le prélèvement automatique est facultatif pour les assujettis qui doivent en faire la demande auprès de l'administration fiscale.

en 1972 dans le secteur postal ; il a été admis par les banques à compter du 1er mars 1977. Le *titre interbancaire de paiement* (TIP), successeur du TUP, a été lancé le 1er juin 1988.

— Le TIP est émis par des sociétés ayant de très nombreux règlements à recevoir. Il revêt la forme d'un imprimé sur lequel le créancier marque, au moyen d'une imprimante d'ordinateur, les caractéristiques et les références du paiement, ainsi que, s'il en a connaissance, le numéro de compte du débiteur et la domiciliation bancaire.

— L'intérêt du TIP pour le débiteur est de disposer d'une formule de règlement déjà remplie sur laquelle il n'a qu'à apposer sa signature et, si elle n'y figure pas déjà, l'indication du compte à débiter ; il est donc dispensé de transcrire les mentions de référence de son règlement. L'avantage procuré à l'entreprise créancière est de recevoir une bande magnétique descriptive des règlements, directement exploitable en ordinateur.

En 1994, 78,3 millions de TIP ont été échangés entre banques (contre 17,2 millions en 1991). Ce développement rapide est dû pour partie au souhait d'EDF/GDF et France Télécom de généraliser ce moyen de paiement auprès de leurs abonnés. De son côté, le Trésor public le propose aux contribuables.

L'émergence du télépaiement qui permet au débiteur de s'acquitter d'un règlement par l'utilisation du téléphone ou du minitel lui donnant accès à un serveur télématique a suscité de nouveaux instruments de paiement (*titre électronique de paiement* ou TEP, et *télévirement référencé* ou TVR).

• *Les cartes bancaires* sont de différents types mais elles tendent à être fusionnées en une seule carte réunissant les fonctions exercées d'abord de façon séparée[1] :

- les cartes de retrait des billets permettant d'effectuer des tirages auprès des distributeurs automatiques de billets (DAB) ou de guichets bancaires automatiques (GBA) ;
- les cartes de paiement permettant d'effectuer des paiements chez les commerçants affiliés ;
- les cartes de crédit facilitant non seulement le règlement des achats mais permettant aussi au titulaire d'effectuer des achats à crédit, la banque consentant sous certaines conditions une avance à court terme à son client.

Le principe du paiement par carte consiste à saisir les coordonnées bancaires du client de manière à, automatiquement, débiter son compte et créditer celui du commerçant. Le matériel utilisé par celui-ci peut être soit un terminal de paiement électronique (TPE) assurant le transfert électronique de fonds soit un terminal point de vente (TPV) qui assure, en outre, l'enregistrement comptable des marchandises par lecture des codes imprimés sur celles-ci.

L'interbancarité est assurée par l'accord national du 30 juillet 1984 signé entre les deux grands réseaux français de cartes de paiement, la carte « verte » du Crédit agricole et la carte « bleue » de l'ensemble des autres banques à laquelle ont adhéré les CCP et les caisses d'épargne.

Certaines cartes n'adhèrent toujours pas au réseau CB (American Express, Diner's...).

Les porteurs de cartes de chaque banque adhérente peuvent utiliser les distributeurs automatiques de toutes les autres banques et effectuer des paiements chez les commerçants affiliés.

La Banque de France gère, depuis 1976, en accord avec le groupement Carte bleue puis le groupement Carte bancaire une centralisation des retraits de cartes pour usage abusif. Ces retraits figurent dans le Fichier central des chèques (FCC). En 1993 48 000 décisions de retraits de carte pour usage abusif ont été déclarées à la Banque de France, ces retraits sont conservés pendant deux ans dans le Fichier central des chèques (FCC).

En 1994, la carte bancaire était détenue par 23 millions de porteurs. Elle a permis d'effectuer à la fois des règlements chez les commerçants (530 000 affiliés ; 1,7 milliard de francs de factures) et d'opérer 0,7 milliard de francs de retraits d'espèces dans les 20 000 terminaux. Certaines cartes, dites bancaires (CB), sont rattachées aux réseaux internationaux Visa ou Eurocard/Mastercard. Ainsi à l'étranger, cinq millions de commerçants et des guichets de retraits d'argent prolongent, pour les porteurs de CB internationales, le service qui leur est offert en France. De la même façon, tous les commerçants français affiliés à la carte bancaire acceptent les cartes Visa et Eurocard/Mastercard émises à l'étranger.

Dans la perspective de l'achèvement du marché intérieur en 1993, la Commission des Communautés européennes avait émis des propositions visant à établir une « interopérabilité » des cartes de paiement. Celle-ci supposait notamment que la libéralisation des capitaux prévue par l'Acte unique soit achevée, qu'un code de bonne conduite régissant les rapports entre tous les acteurs présents sur le marché des cartes bancaires soit mis en œuvre. En outre, au plan technique, la compatibilité

des lecteurs avec n'importe quel type de carte doit être assurée. La généralisation, en 1993, des cartes bancaires à microprocesseur a permis à la France de disposer d'un instrument de paiement d'un haut niveau de sécurité.

L'avènement de la *monnaie électronique* véhicule la seconde vague de l'informatisation dans les banques. Celle-ci transforme le métier d'employé de banque et modifie radicalement les relations de la banque et des clients. La monnaie électronique peut se définir comme l'ensemble des techniques informatiques, magnétiques, électroniques et télématiques permettant l'échange de fonds sans support papier. On utilise pour cela des cartes bancaires et des terminaux de paiement électronique (TPE). Enfin, les *télépaiements* introduisent la « banque à domicile ». La technique du vidéotex permet, à l'aide d'un écran de télévision, d'un téléphone ou d'une carte à microprocesseur, d'accéder aux centres serveurs d'informations (par exemple, banques, Air France, SNCF) et d'effectuer les opérations liées à ces informations.

Le Conseil national du Crédit a fait une étude sur le porte-monnaie électrique (PME). Il distingue deux types de porte-monnaies électriques : la carte universelle, pouvant être utilisée chez tous les commerçants, et la carte multiprestataires « fermée » ne donnant accès qu'à certains réseaux de distribution. Si l'introduction d'une carte universelle ne paraît pas opportune au CNC pour des raisons de coût et de sécurité, il estime en revanche qu'une carte « fermée » pourrait être utile. Des services comme la Poste et la RATP poursuivent des études en vue d'une application du porte-monnaie électronique.

En Belgique, un projet de porte-monnaie électronique « universel » dit projet PROTON est testé depuis février 1995.

Les nouveaux moyens de circulation de la monnaie sont issus des progrès dans le domaine de l'informatique et des communications. Ils présentent l'avantage pour les banques d'être à charges partagées entre elles, les commerçants adhérents et les consommateurs qui doivent acheter les cartes. En revanche, jusqu'à présent, les banques assument seules le coût de l'émission et du traitement des chèques.

On constate en France, comme dans la plupart des pays développés, une véritable explosion de l'usage des moyens de paiement qui s'est traduite par :

— un accroissement important du volume de chèques qui demeure l'instrument de paiement le plus utilisé en France (4,9 milliards en 1994 contre 300 millions de vignettes échangées en 1967). Cepen

dant, sa part relative dans l'ensemble des moyens de paiement diminue et représente en 1994 moins de 50 % ;
— la forte progression des règlements par cartes de paiement ; celle-ci tend à compenser la réduction de la part relative du nombre des chèques ;
— le développement rapide d'un instrument, le virement, auparavant relativement peu utilisé et qui est devenu, en peu de temps, le support privilégié de divers règlements, et plus particulièrement des paiements de salaires ou de pensions ;
— l'émergence de nouveaux instruments : les avis de prélèvement, les titres interbancaires de paiement, qui présentent la caractéristique commune de ne plus donner lieu à échange de « papier » entre banques, les communications s'effectuant uniquement sous forme d'enregistrements informatiques et enfin les cartes ;
— l'avènement de la monnaie électronique.

La monnaie scripturale circule par l'intermédiaire des chèques, des virements, des avis de prélèvements, des titres universels de paiement ainsi que des diverses cartes, mais ceux-ci ne sont que des instruments facilitant la circulation monétaire, ils ne constituent pas par eux-mêmes de la monnaie scripturale. Ce sont les inscriptions dans les comptes, les écritures sur les livres des banques qui constituent la monnaie scripturale, d'où son nom.

Au terme de l'évolution historique des différentes formes de monnaie, il apparaît qu'actuellement la monnaie en circulation est composée :

- d'une part, de signes monétaires : billets de la Banque de France et pièces métalliques (monnaie divisionnaire), soit, en 1995, 15,34 % de la monnaie susceptible de circuler (M1)[1] ;
- d'autre part et à titre principal (84,66 % de la monnaie en circulation), de monnaie scripturale constituée par les dépôts à vue effectués auprès des banques, des centres de chèques postaux, des comptables publics et des caisses d'épargne.

1. L'agrégat M1 inclut les billets et la monnaie divisionnaire ainsi que les dépôts à vue. Par rapport à M3, qui exprime la masse monétaire au sens large, les billets et les pièces métalliques représentent 4,86 %.

OUTLINE OF
- MONETARY ECONOMICS

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OXFORD
AT THE CLARENDON PRESS
1957

Chapter 1

THE ECONOMIC SIGNIFICANCE OF MONEY

At the very heart of nearly all economic relationships in communities that have attained any considerable degree of economic development lies the institution of money. A large part, indeed some would be inclined to say the major part, of the subject-matter of economics is concerned with the functioning and malfunctioning of money.

This central position in economic relationships arises from the two main characteristics of money. In the first place, the majority of debts in developed communities are settled by means of one or other of the various forms of money. Purchases of goods, of services, and of claims (such as stocks, shares, and government bonds) are all generally made with the agency of money, as are payments of taxes. As a direct consequence of this, there arises a point which is still more important for our purposes in the following pages. It is that most incomes are received in the form of money. If a worker or a professional man sells his services for money, then it follows that he is receiving his income in money, because his income consists of the payment he receives for selling his services. In the same way, a businessman who buys and sells goods with money also finds that his income, which derives from the difference between the price at which he sells and the price at which he buys, accrues in the form of money.

The second main characteristic of money, which goes to explain its central significance in a large part of economic theory, is that one of the most important ways in which wealth can be held is as money. Nearly everyone who has any possessions at all in an economically developed community owns some money, whereas many people have practically no other possessions at all apart from their clothes. Moreover, wealthy individuals and organizations (such as business firms) generally own a very considerable amount of money, usually in the form of bank deposits.

The Nature of Money

Like several of the other kinds of wealth with which we shall shortly be concerned, money is a claim. This characteristic of money can be seen at two levels, one of which is relatively superficial while the other is fundamental. At one level, some kinds of money are expressed in the form of a claim to other kinds of money. At the more important level, the real significance of money is that it is a claim which can be used by its owner to buy anything. Money is the most convenient way of laying claim to such goods and services as one wishes to buy.

At the less significant level, many kinds of money are expressed as a claim against other money. As important an example of money as the English pound note bears on its face the promise of the Bank of England 'To pay the Bearer on Demand the Sum of One Pound'. This form of statement is a relic of the days when bank-notes carried out the functions of money rather less perfectly than did some other kinds of money, in the form of gold coins. This superiority of gold coins did not arise out of any intrinsic superiority of money stamped on valuable metal rather than on paper;[1] it arose out of the greater willingness of some people to accept and hold gold coins than paper notes.

To some extent this greater willingness arose because at one time (before 1833) gold coins were legal tender, whereas bank-notes were not. This meant that a creditor was legally entitled to refuse to accept payment of a debt owing to him if the sum were offered in some form other than gold coins. Today legal tender consists of Bank of England notes, and also 'silver' coin for amounts of up to £2 and copper coin for amounts up to one shilling.

Payment by cheque, that is, by an order to a bank to transfer a claim you have against it (i.e. your bank deposit) to some other specified person, is not and never has been legal tender. All the same, it is used for practically all transactions of any substantial amount; in fact, in spite of the law about legal tender, the income tax authorities are inclined to be particularly suspicious of people who avoid using cheques for settling

[1] The major virtue of money stamped on precious metals was that it was expensive to create, so that there was no temptation for governments to create too much of it.

large debts (because of the easier opportunities for income tax fraud when there is no record of transactions in a bank's ledger). Yet there are some people, particularly people who do not have bank accounts, who are unwilling to accept cheques and prefer to accept cash. So, to a minor extent, Bank of England notes today are a rather more perfect form of money than are bank deposits. Bank deposits are expressed as promises by the bank concerned to pay the amount of the deposit to the bank's creditor (the depositor) in the form of Bank of England notes. Unlike the promise on the face of a Bank of England note, this promise to redeem the bank deposit in another form of money is still of some significance, and is not a mere relic.

A bank's debt to its depositor, which is expressed by a statement on the bank's books that it owes the person concerned a certain sum of money, might be regarded as more significantly distinct from legal-tender money if there were any serious danger that the bank might be unable to redeem its debt in legal-tender money. This danger, in modern English conditions, is for all practical purposes non-existent; it is certain that no government would tolerate the confusion that would result if any bank were unable to redeem its debts, simply because each bank is so large that the confusion would be immense. Something would certainly be done to help the bank concerned over a crisis, if one arose. In other places there have been serious bank failures in this century; in the United States they were widespread as recently as 1933. Banking crises and bank failures were by no means uncommon in Britain in the eighteenth and nineteenth centuries; in recent years, however, no one has considered them to be a real danger.

For most practical purposes, then, except where transactions involving rather small sums are concerned, money in the form of claims against banks appears to most Englishmen to be at least as desirable to use and to hold as money in the form of legal-tender currency. The fact that most money now consists of claims against a particular kind of commercial organization (namely the banks) will prove to be of considerable importance in our subsequent discussion of monetary economics.

The second and more important sense in which money is a claim arises from the fact that money can be used immediately to buy anything. It is a claim by its owner which can be used

to obtain any goods, services, or other assets he may require; he can always exchange money directly for anything else at the current market price of whatever it is that he is buying. Anyone will be willing to accept money in exchange for whatever it is he has to sell, because he knows that in his turn he can use money to buy whatever he wants. It is this feature that distinguishes money from everything else. It is a common feature of gold coin under the pre-1914 system, of bank-notes, and of bank deposits. If I hold coin, notes, or a bank deposit, I can use my holdings to buy anything in the market, quite directly.

In order to be considered as money, a claim must be exercisable against all other goods, claims, and services, whoever may be selling them. Therefore, a currently redeemable debt of an ordinary individual or of an ordinary business firm does not count as money, because it will not generally be acceptable in payment for other things. Someone who knows the individual or firm concerned may be willing to accept the transfer of a claim against it in payment for something; but such cases will be the exception and not the rule. Banks are very different in this respect, however. Transfer of the debt of a bank by its depositor is usually accepted without any question by someone who is receiving payment from that depositor; this is merely a more formal way of describing cheque payments, which are taking place daily. Banks, in fact, are those institutions whose current debts are generally acceptable as payment for goods, services, and other claims. Generally speaking they specialize in this sort of business, but occasionally at a rather early stage of development, they may have other business activities. Similarly, it sometimes happens, as in some colonies, that the debts of large trading firms are so generally acceptable that they are regarded and used as money. In developed economic systems, however, such as those of twentieth-century Europe or North America, banking has become a highly specialized business.

Other Forms of Wealth

In addition to money, there are other forms of wealth which will be among our major concerns. In the first place, there are many important kinds of claim, other than money. It is obvious, for example, that someone who owns a document on

which another person promises to pay a sum of money at some future date is sensible if he regards himself as being wealthier than if he did not own such a claim. Where transactions of lending and borrowing are common, as in all developed economies, such kinds of wealth are very important.

Although in small personal contracts for borrowing and lending the same amount may be repaid at the future date as has been lent today, it is usual when the transactions are large or when they are on a commercial basis for the borrower to pay back to the lender a larger total sum than he borrowed. In other words, interest is usually charged when money is lent. Our immediate concern is to look briefly at the reasons why interest is usually paid on debts and to note the characteristics of some of the principle kinds of interest-bearing claim.

Debtors are willing to pay interest on loans because they think that they can acquire an advantage by being able to use funds immediately and only needing to repay at a later date. The advantage may be purely illusory, as in the case of a spendthrift; usually, however, it is quite real. A business man may see a profitable opportunity which demands the use of more funds than he himself possesses—for example, he may see that if he goes to the expense of installing a new machine, he will be able to lower his costs of production. In such circumstances he will be willing to borrow in order to install the machine, and pay interest out of the extra profits it earns him. In a phrase, borrowers are willing to pay interest because borrowing allows them to increase productivity. The factors which determine the level of the rate of interest which borrowers have to pay will be our concern in later chapters.

There are two kinds of interest-bearing loan which will be our particular concern in this book. One is the bill, and the other is the bond. A bill (or to give it its full title, a bill of exchange) is a promise to pay a fixed sum of money on a given future date, commonly three months from the time of issue. The bill bears no explicit statement about interest payable; nevertheless, it is paid, simply by making the promise one to pay a larger sum than the current debt. For example, it may be possible to borrow £990 now by writing out a promise to pay £1000 in three months' time; this implies a rate of interest of just over 1 per cent [illegible] three months, or rather more than

4 per cent. per annum. The process by which a promise to pay a fixed sum in a few weeks' or months' time is sold for a somewhat smaller sum today is known as discounting a bill. It is a common means of borrowing for financing trading transactions, and it is still more frequently used by governments when they wish to borrow.

A bond[1] is a document which promises to pay a fixed sum of money as interest at regular intervals (frequently annually); the promise may apply for a fixed number of years, at the end of which time the capital sum borrowed is repaid, or it may offer no date when repayment of the capital sum is promised. Governments have quite frequently borrowed in the latter way: many British Government securities provide for no date or range of dates when the capital sum must be repaid. Undated securities such as these simply consist of a piece of paper which bears a promise on the part of the debtor to pay a certain sum of money (as interest) at stated intervals (usually twice a year). The legal owner of such pieces of paper has an asset which consists of the right to receive this income indefinitely into the future; this asset has a market value, for which the owner could sell it, and he regards it as part of his wealth.

The differences between the bill and the bond provide examples of both the main kinds of distinction within the family of interest-bearing claim which we need to make. In the first place, there is the distinction between the two kinds of way in which the commitment to pay interest can be expressed: it can be hidden in with the repayment of the loan (as with the bill) or it can be expressed separately (as with the bond).

Secondly, and more important, there is the distinction with regard to the length of time which the lender has to wait before his debt is repaid.

The most important distinction here is that between short and long loans. The bill is an example of a short-dated loan. The bond is long-dated, at least when it is first issued—that is, when the loan is first made. But, of course, a loan made for ten years in 1954 will only have a year to run in 1963, and by then can reasonably be classified as a short-dated loan. The division between short- and long-dated loans can conveniently be drawn

[1] Bonds issued by firms are frequently called debentures. In most modern states the government is the biggest single issuer of both bills and bonds.

at twelve months. Practically all bills are issued with much less than twelve months to maturity (typically the period is three months), so bills are short-dated securities throughout their lives.

For some purposes, it is convenient to make the division threefold—into short-, medium- and long-dated loans; the division between short and the others is still at twelve months, but loans with between one and five years to run to maturity may be called medium-dated securities, and all other loans, including undated bonds, are called long-term securities.

So far we have considered claims which give rights to predetermined sums of money. There is also a further broad category of claims, which play a central role in modern capitalist economies. This is a claim which involves the ownership of a share in the assets of a company, and which gives the right to share in the profits of the company. The share is an uncertain one, both with regard to capital and to income; how large the income will be, and in extreme cases, whether the capital will remain of any value, depends on the success with which the company is run. Since this is so important, ordinary shares, or equities as they are often called, generally include a voting right for the election of directors and for the general control over the running of the business. There are also certain shares which give a prior claim on profits, and so are called preference shares (as distinct from ordinary shares, whose holders take a bigger chance on what is left over); such shares do not have voting rights, or at best, only limited ones.

The greater part of the assets of most firms is in the form of real wealth; that is, in the form of things which have physical existence and which are useful for their own sake or for the sake of what they can produce. Examples are factories, machines, and stocks of materials. In addition, real wealth is held by the government in such forms as barracks and museums and by private individuals in such forms as houses. From the point of view of the country as a whole, total wealth consists predominantly of such physical wealth, because claims by one citizen against another or against a firm within the country or against the government cancel out against the corresponding liabilities of the debtors. If I owe you £1, then you have an asset worth £1, but I have a corresponding liability of £1; if we

are working out the sum of our joint wealth, this item drops out of the reckoning.

The only claims that do not cancel out when we are adding up the total wealth of a country are claims against foreigners; similarly, liabilities to foreigners must be subtracted from total wealth. In just the same way, if we want to calculate how large is the wealth of a family, we ignore all claims between father and son or between husband and wife, but we count claims against outsiders and claims by outsiders against members of the family.

In addition to money, other claims, and real wealth, there is one more kind or wealth to which we must turn our attention for the moment; this consists of those assets which are not claims, and which do not have physical existence; they can be called incorporeal assets. The most important examples are goodwill, patent rights,[1] and skill and knowledge. Strictly speaking, the first two of these kinds of incorporeal wealth should perhaps be ignored in deciding what is the total wealth of a country, because although their value can be measured commercially and they are saleable, they are assets which give rights or power over other people, and are wealth only from the point of view of the beneficiaries of those rights, and not from the point of view of society as a whole.[2] As for wealth in the form of skill and knowledge, it is best excluded for another reason. Although it is undoubtedly significant, its value is very hard to measure; eventually we have to draw a line at which we must stop. Where we decide to draw that line, and say that everything beyond that line we shall not consider as part of private or national wealth, is a matter of convenience which is essentially arbitrary.

The Subject-Matter of Monetary Economics

Monetary economics, then, is concerned with income and with wealth, because most incomes are received in the form of money, and because money is one of the most important forms in which wealth can be held. Moreover, several of the non-monetary forms of wealth, which we have described in out-

[1] Strictly speaking, a patent can be regarded as a potential claim against a usurper

[2] In so far as goodwill and patents give rights over foreigners they may reasonably be counted as part of the wealth of the country as a whole

line above, are expressed in terms of money. In particular, this is the case with interest-bearing loans, such as bills and bonds.

A precise definition of the subject-matter of monetary economics is almost impossible, and the attempt to make it is hardly worth while. Income and wealth together form the subject-matter of the study of economics as a whole; monetary economics simply lays emphasis on certain aspects of the broader subject, which are particularly closely related to the existence of money. The most convenient way of indicating the scope of our subject is, therefore, to list the most important kinds of problem with which we shall be concerned.

The problems of the succeeding chapters will be problems concerning levels of income and the accumulation and holding of wealth. Principally, three questions will be our concern. Firstly, what factors are important in determining the level of income of a society? In looking at this question, our concern will not be with the deeper, more fundamental question of why some countries are very rich and others very poor; those are questions concerning long-run developments, which can only be answered by collaboration between the economist, the sociologist, the historian, and the geographer. Our questions about the level of income will be concerned with phenomena that are more subject to change in short periods. We shall be particularly concerned with the reasons why a country may fail to use all the resources it has available as fully as it might, so that its real income is lower than it might be (that is, with the problem of unemployment), and with the causes of rises in the level of money income when real incomes are unchanged (that is, with the problem of inflation).

The second of the three fundamental questions that will be our concern will be consideration of the reasons why people try to build up wealth, that is, why they save, and why they decide to amass real wealth[1] (which they may pay for either out of their own current savings, or by borrowing from other people).

The third of our questions is also concerned with wealth, but with wealth that has been acquired in the past, and not with current additions to wealth. This is the question of how

[1] Such as houses, machines, land, &c.

people will choose to hold the wealth that they have amassed in the past; whether they will continue to hold it in the form in which they are already holding it, or whether they will try to switch from holding one sort of asset to holding another (as, for example, by selling securities and holding cash instead, or by selling securities and buying a house).

These three main questions will be the heart of our study; their answers will occupy us at length, particularly since we shall find that they are linked inextricably. In looking at the answers to these questions, we shall be concerned with the actions of groups of individuals, groups of firms, and of large organizations such as the government and the banks. Our concern is the income and wealth of nations and of the major economic groups within nations.

ENCYCLOPEDIA OF Banking & Finance

TENTH EDITION

CHARLES J. WOELFEL

A BankLine Publication



Fiscal policy is relatively unimportant for monetarists. Erratic monetary policy is the major cause of business cycles. Money is important at all times. Monetary policy affects spending in all markets simultaneously. Velocity is relatively stable. Liquidity crunches are relatively implausible.

For supply siders, high tax rates and vast government spending reduce the incentives for people to be productive. Erratic fiscal policy confuses investors and workers, reduces productivity, and diverts resources from production. Steady monetary policy improves the quality of information about economic decisions. Velocity is stable when monetary policy is stable. Liquidity crunches are irrelevant.

See CREDIT CONTROL, FISCAL POLICY, MONEY SUPPLY.

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MONETARY STANDARDS The type of STANDARD MONEY (money of ultimate redemption) in a monetary system. The two basic types of monetary standards, therefore are commodity standards and fiat standards.

Commodity Standards. The two commodities principally used as standard money in monetary history have been gold and silver.

1. Gold standards may be classified as follows:
   a. Gold coin standard.
   b. Gold bullion standard.
   c. Gold exchange standard.
2. Silver standards may be classified as follows:
   a. Silver coin standard.
   b. Silver bullion standard.
   c. Silver exchange standard.
3. Bimetallic standards—in which the STANDARD OF VALUE is defined as either of the two monetary metals, gold and silver, in specific quantity and fineness for each—may be similarly classifiable as to:
   a. Bimetallic coin standard.
   b. Bimetallic bullion standard.
   c. Bimetallic exchange standard.
4. Symmetallic standard (never tried)—in which the standard of value is defined as a specific *total* quantity of a fusion or combination of two (or more) monetary metals, in specified proportions—could be
   a. Symmetallic coin standard.
   b. Symmetallic bullion standard.
   c. Symmetallic exchange standard.
5. Compensated standard (never tried)—in which the quantity of the monetary metal in the standard unit would be changed to offset changes in the purchasing power—could not feasibly be a compensated coin standard, but it could be
   a. Compensated bullion standard.
   b. Compensated exchange standard.

Fiat Standards. Fiat standards define the standard unit as a unit of fiat money (irredeemable into any other kind of money); the paper, metal, or other constituent material of the currency is worth much less intrinsically than the monetary denomination specified. A fiat standard therefore specifies full legal tender for the standard fiat money. It is possible to have a fiat exchange standard in addition to the Fiat money standard as such.

Tabular Standard. The tabular standard (never tried) would involve adjustment of deferred payments in line with changes in prices, whatever the monetary standard might be. Thus it is not, properly speaking, a monetary standard as such.

Credit Money. Actually circulating media for the monetary standard might include various forms of credit money (or representative money), redeemable into the standard unit of the monetary standard.

See MONETARY UNIT.

MONETARISTS Monetarists argue that fiscal policies have little effect on real gross national product (GNP) because monetary growth is the most important factor determining economic activity. Furthermore, stabilization policies of any kind are not likely to be effective because policy makers have difficulty implementing the correct policies at the right time. The most notable advocate of monetarism is Nobel Laureate Milton Friedman.

The equation of exchange ($M \times V = P \times y = Y$) is central to the monetarist's analysis of economic activity. With the assumption that the velocity of money (V) is predictable and independent of the quantity of money (M) in the economy (this assumption is questionable, especially in the economic environment that has characterized the 1980s), the equation of exchange becomes the quantity theory of money. The quantity theory of money asserts that there is a causal relationship from changes in the money supply to changes in nominal GNP (Y) (equal to real GNP (y) times an average price level (P).

Monetarists also believe that stable fiscal and monetary policies will establish confidence in the economy and are conducive to long-run investment decisions. Their recommendation is to put the Federal Reserve Board on autopilot and to have the money supply increase at a predetermined and announced rate of growth.

MONETARY BASE The liabilities of the Federal Reserve System are its currency and the deposits of member banks. The total of these two liabilities is called the monetary base. Changes in the monetary base, through an open market operation, for example, are the first step toward changes in the money supply.

MONETARY STOCK The aggregate of all kinds of money issued by a government, including that held in the treasury, in the central banks and other banks of issue, and in circulation. The monetary stock of the United States consists of that held in U.S. Treasury and the mints, in the Federal Reserve banks, and in circulation (outside the Treasury and Federal Reserve banks).

The bulk of U.S. money in circulation is provided by FEDERAL RESERVE NOTES, which, as of March 31, 1987, accounted for over 92% of total currency and coin in circulation and were the only form of paper money being currently issued except for a continuing small amount of UNITED STATES NOTES.

All forms of paper money and coin in circulation, other than Federal Reserve notes (Federal Reserve Bank notes), national bank notes, GOLD CERTIFICATES (series issued prior to January 30, 1934), silver certificates, Treasury notes of 1890, United States notes, and coin (dollars and fractional coin) are Treasury liability currency.

The largest component of currency in circulation is the liability of the Federal Reserve. And in turn, the Federal Reserve notes comprise the largest of the Federal Reserve's liabilities. As of December 31, 1986, $195,360 million in Federal Reserve notes were issued. The remaining $262,284 million liabilities largely consisted of deposits of private and government institutions.

The assets of the Federal Reserve at the same time were $2[illegible]6,030 million, most of which consisted of U.S. government securities totaling $211,316 million. Other Federal Reserve assets include a gold certificate account, special drawing rights certificates account, federal agency obligations, and foreign currency-denominated assets. Each of these accounted for less than 5% of total assets.

In accordance with the Gold Reserve Act of January 30, 1934, title to all of the U.S. monetary gold stock, including some $3.5 billion held by

the Federal Reserve banks, was vested in the Treasury of the United States. The gold certificates or credits therefor held by Federal Reserve banks and agents represented monetization of the payment (at the old rate for gold of $20.67 per ounce, compared with the $35 per ounce resulting January 31, 1934, when a presidential proclamation pursuant to the GOLD RESERVE ACT OF 1934 devalued the dollar) to the Federal Reserve banks by the Treasury when these institutions turned in their monetary gold. Only Federal Reserve banks and agents may hold such gold certificates, series of 1934, which do not appear in circulation. Their functions included (1) to serve as legal reserve requirement against Federal Reserve notes outstanding and total deposits of Federal Reserve banks (P.L. 89-3, March 3, 1965, eliminated such requirement against deposits, minimum of which was 25% at that time), and (2) to serve as gold cover (gold certificates collateral) against Federal Reserve notes outstanding (P.L. 90-269), March 18, 1968, eliminated such requirement, minimum of which prevailing at the time was 25%. Use for settlements for the Interdistrict Settlement Fund continued.

The Special Drawing Rights Act (P.L. 90-349, June 19, 1968), mainly authorizing U.S. participation in the special drawing rights arrangement established within the INTERNATIONAL MONETARY FUND, also authorized the secretary of the Treasury to sell to the Federal Reserve banks certificates against the special drawing rights of the U.S. and authorized the Federal Reserve banks to use such certificates for specified purposes.

MONETARY TARGETS Projections of monetary aggregate and credit growth that give some indication of monetary policy intentions of the Federal Reserve. Monetary targets (ranges) are announced in periodic reports by the Federal Reserve submitted to Congress as required by the Full Employment and Balanced Growth Act of 1978. The projections cover the annual periods from the fourth quarter of one year to the fourth quarter of the following year.

MONETARY UNION *See* LATIN UNION, SCANDINAVIAN UNION.

MONETARY UNIT The unit selected by a government to serve as the unit of account and which by law contains a prescribed weight (and fineness) of the metal selected to serve as the standard of value. The gold dollar, although no longer coined, is the monetary unit of the United States. Since the United States possesses a decimal coinage system, the dollar is a multiple of fractional coins and an aliquot part of coins of higher denomination. The weight of the standard unit was fixed at 23.22 grains of pure gold, or 25.8 grains of gold 0.900 fine, prior to the suspension of the gold standard on April 19, 1933. On January 31, 1934, presidential proclamation permanently fixed, pursuant to the Gold Reserve Act of 1934, the standard weight of the dollar at 15 $^{5}/_{21}$ grains, 0.900 fine, or 13.7137 grains pure gold, being 59.06% of the former gold content.

Pursuant to the Par Value Modification Act, signed March 21, 1972, the gold content of the U.S. dollar became 12.6588 grains fine a devaluation of approximately 7.69% compared with the former fine gold content. This action, internationally effective upon formal notification to the INTERNATIONAL MONETARY FUND, followed the floating of the U.S. dollar from its previous international par value as one of the measures in the administration's INCOMES POLICY on August 15, 1971.

The Par Value Modification Act was amended on September 21, 1973, pursuant to which, effective October 18, 1973, the U.S. monetary price of gold per fine troy ounce was increased from $38 to $42.22 (reduction in indicated gold content to 11.37 grains).

See GOLD COINS, MINT PRICE OF GOLD.

Although many countries have similarly retained gold as the standard of value, most of them have instituted a prohibition of gold coinage and internal circulation of gold coin similar to such prohibitions in the United States. For the various monetary units of other countries, *see* FOREIGN MONEYS.

See MONEY OF ACCOUNT, STANDARD MONEY, STANDARD OF VALUE.

MONEY A medium of exchange; an instrument, token, or commodity, whether metal or paper, by which payment is made for the transfer of values from one person to another. The essential characteristic of good money is that it is readily acceptable in payment for goods and services and in settlement of debts, without reference to the credit worthiness of its specific form or of the person tendering it in payment. Acceptability of specific forms of money in settlement of debts is imparted by the law's prescribing them to be LEGAL TENDER, i.e., money which by law a debtor is authorized to offer in payment of debt.

The role of government in the definition and maintenance of a high quality of money has been fundamental from ancient times. Aristotle (*Ethica Nichomachea*) was the precursor of modern theorists of money management by government in writing. "Money has become by convention 'money' (*nomisma*)—because it exists not by nature but by law (*nomos*) and it is in our power to change it and make it useless." The history of money from ancient times is replete with examples of governmental tinkering with money systems in accordance with this nominal theory of money. King Dionysius of Syracuse (432-367 B.C.) ordered in all drachmas, decreed each to be worth two, returned one new for evey two old, and used the profit to pay the public debt—as modern a devaluation as any present-day nominalist could conceive. The pathology of money is largely a history of nominalism in action. The ultimate in nominalism is FIAT MONEY, money decreed by government: (1) without any redemption into standard money, (2) without intrinsic value or having a declared monetary value far above any intrinsic value, and (3) having legal tender power as the exclusive or the preponderant basis of its value as money. Nominalism run wild leads to deterioration of money's acceptability as a medium of exchange and store of value until the money is rendered worthless, trade and exchange becomes impossible, and the wreckage wipes out or creates heavy losses for creditors, people on fixed money incomes, and all recipients of labor income.

The primary quality of good money that people and the economic system are entitled to, therefore, is stability of value. Stability of value connotes stability not only of the declared monetary value, but also of the purchasing power of money, i.e., its value in terms of goods and services. Modern monetary theory emphasizes that the meaningful function of money management by government is not monetary tinkering or exploitation, but furtherance of the neutrality of money in fulfilling its functions (1) as a measure of value, (2) as a medium of exchange, (3) as a standard of deferred payments, and (4) as a store of value. Implicit in an objective of the EMPLOYMENT ACT OF 1946 of maximum purchasing power is such management of the money supply relative to the level of prices.

By "money supply" is meant not only forms of money in circulation but also the bank deposit currency (demand deposits subject to check) that constitutes the principal means of payment in modern credit systems (although checks are basically credit instruments and not money) and the velocity (turnover) of both. The various forms of money used by the principal commercial nations of the world may be classified as follows:

1. PAPER MONEY
   a. Government notes or promises to pay.
      (1) Secured by gold reserve, full or partial (specie reserve).
      (2) Secured by government securities (collateral cover).
      (3) Unsecured (fiat money).
   b. Bank notes (usually exclusive with central banks as banks of issue).
      (1) Secured by gold reserves.
      (2) Secured by government securities.
      (3) Secured by commercial paper.
      (4) Secured by general assets.
      (5) Secured by any combination of the above.
2. METALLIC MONEY.
   a. Gold coin (prohibited or restricted in domestic circulation of most countries in recent years).
   b. Full legal tender silver coin.
   c. Subsidiary coins with full or limited legal tender.
   d. Minor coins, with full or limited legal tender.

Other qualities of good money conventionally include such factors as durability and malleability, which imply that metallic money is superior. Actually, because of its great advantage of portability, paper money has

come to predominate in most currency systems of the world in denominations of the standard unit or higher, as it fully qualifies as to other conventional qualities—divisibility, homgeneity, and cognizability.

Gold constitutes the basic monetary metal for the currency and credit systems of the world, serving as reserve (invariably fractional) for currency and deposits. Over time, by resort to paper money and circulating coin in other metals (silver, copper, nickel, aluminum, etc.), great economy in the use of gold has been achieved, which has permitted great expansion in the money supply to meet the needs of exchange. A distinguishing feature of financially developed nations is the widespread use of checks, giro accounts, money orders, etc., as means of payment, which further economize on the use of basic metals for monetary purposes.

See COINAGE, CURRENCY, FOREIGN MONEYS, GOLD PRODUCTION, GOLD RESERVE, GOLD STANDARD, LATIN UNION, MINT, MONETARY STOCK, MONETARY UNIT, MONEY CIRCULATION, MONEY SUPPLY, QUANTITY THEORY OF MONEY, REDEMPTION OF MONEY, REPRESENTATIVE MONEY, SCANDINAVIAN UNION, TOKEN MONEY, UNITED STATES MONEY.

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MONEY BROKER A person or firm that acts as intermediary between borrowers and lenders of money. With discontinuance of the money desk of the New York Stock Exchange at the end of World War II, the usefulness of such brokers increased. The market for federal funds, for example, is facilitated by the services of several firms (e.g., Garvin, Bantell & Co. in New York) and banks (e.g., Irving Trust Co. in New York). Regulations of the Board of Governors of the Federal Reserve System require that members of national securities exchanges borrow either from member banks of the Federal Reserve System or from nonmember banks who agree to submit to such regulation.

See MONEY MARKET.

MONEY CIRCULATION Currency (coin and paper money) in circulation, outstanding outside of the Treasury and Federal Reserve banks. Since most business in the United States (about 90%, judging from bank debits to checking accounts and estimated turnover of currency supply) is transacted by means of the bank check, money circulation is of secondary importance compared with demand deposits as part of the effective money supply. Indicating the turnover (velocity) of demand deposits (excluding interbank and U.S. government demand deposits), debits to such accounts reached a then record high of $206, 689 6 billion seasonally adjusted annual rate, or a turnover of 560.7 times the indicated total of 308.3 billion, seasonally adjusted, in demand deposits averaged for December 1986, including New York. Major New York City banks alone had a demand deposit turnover rate of 2251.6 times on the same basis, while other banks carried in the Federal Reserve's series on bank debits and deposit turnover had a demand deposits turnover rate of 340.0 times (all seasonally adjusted at annual rates). Such turnover rates afford an indication of the true effective supply of demand deposits, the primary form of transaction deposits. Turnover rates of demand deposits at New York City banks are much higher than those of other banks because of the concentration of financial transactions in New York City, involving both domestic and international funds. (For monthly data on bank debits and deposit turnover, see current issues of the *Federal Reserve Bulletin*.)

The bulk of money circulation in the U.S. consists of FEDERAL RESERVE NOTES. As of 1986, United States notes were the only other form of paper currency issued regularly, the only form of treasury liability currency in paper circulation, dollars and fractional coin are also treasury currency because the Treasury is responsible for their issuance or retirement.

Although of seconday importance compared with demand deposits (checking accounts) as a means of payment, paper currency and coin in money circulation have expanded in a steady uptrend which appears to indicate a permanently higher level of money circulation compared with pre-World War II years. Money circulation as of year-end 1986 was about 24 times larger than that of year-end 1940, and about 48 times larger than that of year-end 1929. On a per capita basis, money in circulation reached a record high of 855.0 as of March 31, 1987.

Among the reasons for this expansion are the much larger volume of employment and payrolls, expansion in retail trade and thus requirements for till money, elimination of interest on demand deposits (Banking Act of 1933), increased service charges on checking accounts, and reduction in the number of banks in specific communities (although the number of banking offices in the aggregate has increased). Sales taxation and preference for cash payments instead of checks (it is speculated that the tax evasion motive and the underground economy may be importantly responsible) are the factors.

MONEYED CORPORATION A corporation formed under or subject to the banking law or the insurance law. Stock corporations may be classified as moneyed corporations railroad corporations, transportation corporations, business corporations, and cooperative corporations.

MONEY MARKET In a broad sense, any demand for and supply of funds and credit; in the technical sense, the open market, as contrasted to personalized borrower-lender relationships for short-term funds and the capital market for longer-term funds (government and municipal bonds, and corporate bonds and stocks) provided by dealers and underwriters (both outstanding and new issues). The national money market in the U.S. is the New York money market.

Structurally, the New York money market has the following sectors:

Federal funds
Treasury bills
Bankers acceptance (bills)
Commercial paper
Certificates of deposit
Eurodollar certificates of deposit

At one time, when open market call and time loans to brokers could be arranged through the money desk of the New York Stock Exchange, such brokers' loans could also be classified as part of the money market. At the close of World War II, however, the money desk was discontinued and such brokers' loans are now arranged directly between the banks and brokers concerned.

The primary dealers of U.S. government securities include the following banks and nonbanks (all of New York except where noted):

Banks
Bank of America NT & SA
Bankers Trust Co.
Chase Manhattan Government Securities Inc.
Chemical Ban

Citibank NA
Continental Illinois National Bank and Trust Co., Chicago
Crocker National Bank, San Francisco
First Interstate Bank of California, Los Angeles
First National Bank, Chicago
Harris Trust and Savings Bank, Chicago
Manufacturers Hanover Trust Co.
Morgan Guaranty Trust Co.
Security Pacific National Bank

Nonbanks

Bear, Stearns & Co.
Briggs, Schaedle & Co., Inc.
Carroll McEntee & McGinley Inc.
Daiwa Securities America
Dean Witter Reynolds Inc.
Discount Corp of New York
Donaldson, Lufkins & Jenrette Securities Corp.
Drexel Burnham Lambert Government Securities Corp.
First Boston Corp.
Greenwich Capital Markets Inc., Greenwich, Conn.
Goldman, Sachs & Co.
E.F. Hutton & Co. Inc.
Kidder, Peabody & Co. Inc.
Kleinwort Benson Government Securities Inc.
Aubrey G. Lanston & Co. Inc.
Lehman Government Securities Inc.
Merrill Lynch Government Securities Inc.
Morgan Stanley & Co. Inc.
Nomura Securities International
Paine Webber Inc.
Wm. E. Pollock Government Securities Inc.
Prudential-Bache Securities Inc.
Refco Partners L.F.
Rothschild, Unterberg, Towbin Salomon Brothers Inc.
Smith Barney Government Securities Inc.
Thomson McKinnon Securities

Federal Funds. These are immediately available claims upon reserve accounts of member banks at the Federal Reserve Bank. Member banks resort to federal funds for the adjustment of reserve positions when needed for legal reserve purposes. Lending banks, in turn, earn some return on idle excess reserves at the Fed without tying up the funds on the loan for more than a day. For example, Bank A has excess reserves at the Fed; Bank B needs reserves for legal reserve requirements. Bank A will make the desired sum available to Bank B on the day needed by a simple and convenient exchange of checks: Bank A draws a check on its reserve account at the Federal Reserve Bank, payable to Bank B, and delivers it to Bank B in return for Bank B's cashier's check, payable to Bank A, for the same principal sum plus one day's interest at the current federal funds rate. Bank B will receive immediate credit to its reserve account for its Fed deposit of Bank A's check on the same day; Bank A will present Bank B's cashier's check at the clearinghoue and settlement will be made the following day. Net result: a loan of federal funds from Bank A to Bank B for one day at the prevailing rate for federal funds.

New York banks might borrow similarly from out-of-town banks or lend to out-of-town banks (usually correspondents). Bank C in New York City needs reserves; Bank D in New York State has excess reserves. Bank D telephones the New York Federal Reserve Bank (confirming by wire) to make available the desired amount to Bank C, which is done immediately. The following day, Bank C will repay the principal sum plus interest for one day at the prevailing rate for federal funds; this may be done by simple credit to Bank D's correspondent account with Bank C or by instructions to the Fed to charge Bank C's reserve account and credit Bank D's reserve account for the principal plus interest.

If the lending and borrowing banks are located in different Federal Reserve districts, the Federal reserve banks concerned will figure in the loan of federal funds. Bank X in New York, having excess reserves, upon request from Bank Y in Chicago or from a money broker on Y's behalf, will instruct the New York Federal Reserve Bank to transfer the desired sum by the Federal Reserve System's wire transfer system to the Chicago Federal Reserve Bank, for credit to Bank Y's reserve account. Bank Y will repay, the following day, the principal sum by reversing the wire transfer and the interest usually by check directly to Bank X or by credit to Bank X's correspondent account.

Money brokers, if they figure in federal funds deals, may charge no commission, in return for the expectation that the bank provided the service will continue to favor the broker with security orders (e.g., such brokers may be New York Stock exchange members, such as Garvin, Bantel & Co., which also deal in government securities), or may charge a fractional commission (annual rate of 1/16th or 1/8th of 1%). Banks acting as brokers in such federal funds deals do so without charge for correspondents. *See* MONEY BROKER.

Alternative methods of obtaining reserves might involve two or more days; federal funds, if available, provide the quickest and cheapest way for member banks to obtain reserves at the Fed.

The *rediscount rate* of the New York Federal Reserve Bank normally acts as the ceiling for the New York federal funds rate, for the alternatives of loans or advances at the bank would be cheaper if the federal funds rate went higher. Whenever money is easy, the federal funds rate will be well below the rediscount rate, reflecting an ample supply of excess reserves of member banks. Because of its sensitive reflection of member banks' money positions, the federal funds rate is regarded highly by the New York Federal Reserve Bank as an indicator of money market conditions, although its attention in latest years has primarily been on the monetary aggregates for purposes of MONETARY POLICY.

Repurchase agreements (sales by government securities dealers to member banks, with an agreement to buy back the securities one or more days later) and loans by out-of-town banks to government securities dealers are often settled in federal funds. The New York Federal Reserve Bank also utilizes such repurchase agreements to assist the money position of U.S. government securities dealers.

Treasury Bills. These shortest term of the U.S. government's obligations (*see* TREASURY BILLS, UNITED STATES GOVERNMENT SECURITIES) provide the heaviest volume of outstanding and trading activity of the money market. Open market operations of the FEDERAL RESERVE SYSTEM are normally conducted in Treasury bills. Commercial banks are their largest buyers and sellers, operating through government securities dealers to adjust their reserve positions or secondary reserves. Weekly new offerings are bid for competitively on Mondays, awards are made Tuesdays, and payment therefor is made on Thursdays, either in federal funds or in maturing bills. Major money market money flows, therefore, occur through the medium of Treasury bills.

Negotiable Time Certificates of Deposit. Beginning in 1961, the larger banks began to offer negotiable time certificates of deposit (CDs), a new money market instrument intended to attract and to keep corporate funds that otherwise would find investments in other money market instruments. Time CDs have short-term maturities, with yields which increase in proportion to the length of the maturities, and are issued in larger denominations of $0.5-$1.0 million minimum for the larger banks (no less than $100,000 for smaller banks).

Certificates of Deposit. First introduced to the domestic money market in 1961, negotiable certificates of deposit issued by U.S. banks domestically have become among the most important sources of funds of U.S. money market banks in recent years. The instrument specifies the amount of the deposit, the length of the maturity, the rate of interest (domestic certificate of deposit rates are quoted on an interest-bearing basis, rather than on a discount basis), and the terms of calculation of the interest (actual number of days to maturity, on a 360-day year basis, fixed or variable when paid, etc.). Rates are free to reflect prevailing levels of money rates on such certificates of deposit above $100,000, although the minimum denomination for market trading is actually $1,000,000. Since the offering bank can tailor the maturity and yield to compete successfully with Treasury bills of comparable maturity (for example, a return 25 basis points better than that on the bills), the offering bank can be

successful in keeping the deposits of large corporate depositors that otherwise would leave to be invested in the bills; and by changing the classification of the deposits from demand to time, the bank can gain excess reserves because of the lower legal reserve requirements on time deposits compared to demand deposits.

Eurodollar Certificates of Deposit. These are dollar-denominated negotiable certificates of deposit issued by banks abroad, either by foreign branches of U.S. banks or by foreign banks, with the market centered in London. Also called Euro CDs, Eurodollar certificates of deposit were introduced to the market in London in 1966 by a U.S. bank and trading therein has grown substantially in recent years.

Bankers Acceptance. These are obligations of those banks which accept drafts drawn pursuant to commercial letters of credit (largely in foreign trade). Instead of holding them for investment until their final maturity and payment, their holders may sell them to bill dealers in the money market, who in turn sell them largely to other banks desiring such a high-grade short-term obligation for investment, especially foreign banks. Bill volume is secondary in size and activity to that in Treasury bills. *See* LETTER OF CREDIT.

Commercial Paper. These are short-term promissory notes (four- to six-month maturities as a rule) of nationally known and highly rated companies, placed through commercial paper dealers, who in turn sell the paper to commercial banks and other buyers. The largest finance companies place their own paper directly with investors in the New York money market without using dealers. Some major industrial conglomerates have also taken to direct placement of their commercial paper. The volume of commercial paper is larger than that of bankers acceptances, but both are by far secondary to volume and activity to Treasury bills.

The appended table shows money market rates, 1976–1992.

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MONEY MARKET CERTIFICATE Certificates authorized for commercial banks and thrift institutions with minimum denominations originally at $10,000 and reduced to $2,500; interest rate based on the 26-week U.S. Treasury bill rate.

MONEY MARKET DEPOSIT ACCOUNT (MMDA) A savings account authorized in 1982 under the Depository Institutions Deregulation Act (Garn-St. Germain Act). MMDAs are in effect a relatively high-yielding, liquid savings account with no interest rate ceiling. Rates are set by the bank. A seven-day hold is permitted on withdrawals up to six preauthorized third-party withdrawals are permitted per month, of which three can be checks. Regulatory rules phased in minimum deposit requirements. The original minimum balance requirement of $2,500 was lowered to $1,000 on January 1, 1985, and eliminated in 1986.

MONEY MARKET FUNDS As defined by the Investment Company Institute, mutual funds whose primary objective is to make higher-interest securities available to the average investor who wants immediate income and high investment safety; also called liquid asset or cash funds. This is accomplished through the purchase of high-yield money market instruments such as U.S. government securities, bank certificates of deposit, bankers acceptances, and commercial paper.

Growth. In 1981, total assets of money market funds soared to some $182 billion, compared with $74 billion in 1980. According to the Investment Company Institute, money market funds in 1981 paid dividends to shareholders of $18 billion, "almost triple the amount they would have earned if the dollars had been held in 5¼ per cent savings accounts" (5¼ percent was the ceiling rate as of 1981 on passbook savings accounts of savings departments of commercial banks). The money market funds have been able to pay such superior returns because of their specialization in short-term money market investments, whose yields have risen in recent years in reflection of the anti-inflation monetary policy adopted by the Board of Governors of the Federal Reserve System. With thrift institutions limited in the rates they may pay on passbook savings accounts as well as on time savings certificates of varying maturity to levels below those prevailing in the money market and afforded by money market funds, the drawing power of the money market funds off thrift funds has been a serious problem in recent years for thrift institutions. Disintermediation (outflow of thrift funds from the thrift institutions), compounded by the problem of operating losses incurred because of the higher interest cost of deposits and other expenses above current earnings from older portfolios of mortgages paying fixed rates below current rates paid on deposits, has been threatening net worths. (*See* SAVINGS AND LOAN ASSOCIATIONS, SAVINGS BANKS.)

Money market funds features include (1) opening of accounts with low initial amounts, e.g., $1,000 or $2,500, (2) free checkwriting for withdrawal of cash at any time without penalty, (3) dividends declared daily, compounded, or paid monthly, (4) same-day telephone withdrawals, (5) portfolio holdings that may be diversified in the various sectors of the money market or specialized in holdings of U.S. government securities alone, and (6) the advantages of scale provided by investing in the large wholesale amounts necessary in the money market (for example $1,000,000 trading minimum in negotiable time certificates of deposit). Also the no-load feature and the low expenses are appealing.

Since the appeal of money market funds is their superior yield compared to the ceiling rates imposed on thrift institutions, the gradual elimination of such ceiling rates (*see* DEPOSITORY INSTITUTIONS DEREGULATION AND MONETARY CONTROL ACT OF 1980), as well as any appreciable declines in money market yields, might well dilute the appeal of money market funds to investors.

Monetary Control. Money market fund shares are included by the Board of Governors of the Federal Reserve System in their M2 classification of the money supply for monetary control purposes (*See* MONEY SUPPLY) because of the checking privileges granted by money market funds to their holders.

Early in 1980, the Federal Reserve initiated a series of extraordinary actions to curb inflation, some of which were taken under authority of the Credit Control Act of 1969, which was invoked by the President for the first time. That act provides that "whenever the President determines that such action is necessary or appropriate for the purpose of preventing or controlling inflation generated by the extension of credit in an excessive volume, the President may authorize the Board Board of Governors of the Federal Reserve System) to regulate and control any or all extensions of credit."

Among the severe restraints imposed on inflationary trends announced on March 14, 1980, was the imposition on money market funds of special deposits by the Federal Reserve equal to 15% of the net increases in their assets after March 14, 1980. Such a setaside in cold cash reduced the yields afforded by the money market funds subject to the action, but the mutual fund industry responded by organizing "clone" money market funds, new money market funds having the same features which continued to attract investors. However, both short- and long-term interest rates dropped precipitously as money and credit demands fell and signs of economic decline multiplied" (Fed's review) in reaction to the severe restraints imposed by the Fed. Accordingly, the Fed reduced its discount rate a full percentage point in May and again in June, announced a partial phaseout of the special credit restraint measures on May 22, and finally

Money Market Rates
(in percent)

	1976	1980	1982	1984	1986	April 1992
Federal funds	4.65	18.90	12.26	10.23	6.80	3.7?
3-month CD	4.6?	18.65	12.27	10.3?	6.51	4.00
3-month Eurodollar deposit	5.01	19.4?	13.12	10.73	6.7?	4.0?
90-day bankers acceptance	4.62	17.96	11.89	10.1?	6.38	3.9?
3-month Treasury bill	4.35	15.49	10.6?	9.5?	5.98	3.75
90–119 day commercial paper	4.66	18.07	11.89	10.10	6.49	4.04

Source: Board of Governors of the Federal Reserve System, *Annual Statistical Digest,* 1974–1985, pp. 85–92; *Federal Reserve Bulletin,* various issues.

on July 2 announced plans to complete the phaseout, including lifting of the special deposits requirement imposed on money market funds.

With the entry into the financial services field in latest years of nonbanks, offering such services as cash management accounts with checking privileges, an open question as of 1982 continued to be whether legislation might in the future subject such non-banks, including money market funds, to monetary regulation and control.

See INVESTMENT COMPANY.

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MONEY MULTIPLIER The factor by which a change in total reserves changes the M1 money supply. The money multiplier equals the reciprocal of the reserve requirement ratio (1/*rr*). Therefore, the change in demand deposits (ΔDD) resulting from a change in total reserves (ΔTR) from an open market operation will equal (ΔTR × (1/*rr*)):

$$\Delta DD = \Delta TR \times (1/rr)$$

where (1/*rr*) is the money multiplier. If the reserve requirement ratio is 10%, then the value of this money multiplier is (1/.10) = 10. Therefore, a $1 increase in total bank reserves will have a $10 impact on demand deposits.

MONEY OF ACCOUNT The kind of money in which the bookkeeping of a nation is carried on. In the United States, business houses keep accounts in dollars and cents; in England, in pounds, shillings, and pence; in France, in francs and centimes; etc.

Prior to 1982, the United States Code contained a provision stating that the "money of account" of the United States shall be expressed in dollars, dimes, cents, and mills. This section was amended by Public Law 97-258 (1982) so that the expression "money of account" is replaced by the term "money."

MONEY ORDERS A form of credit instrument calling for the payment of money to the named payee and providing a safe and convenient means for persons not having checking accounts to remit funds. There are three parties to a money order: the remitter (payer), the payee, and the drawee. Money orders have been issued by the Post Office Department; by American express Co., various other private organizations, and their franchised retail stores; and by some commercial and savings banks and savings and loan associations. In handling, an advantage of money orders as compared to checks is that presentation to their original place of purchase is not required for payment. A further advantage may be lower cost. The scale of fees for domestic postal money orders as of 1989 was as shown on the appended table.

1989 Postal Money Orders

Amount of money order	*Amount of fee*
$ 0.01 to $ 35	$ 0.75
Over $ 35	$ 1.00

MONEY POOL In past periods of financial stringency in the CALL MONEY MARKET, when bank lenders were generally calling in such loans, borrower brokers found themselves in a bind, with insufficient funds offered to take up the called loans. On various such occasions, a money pool was formed by a group of the larger banks as an emergency measure to relieve the stringency.

MONEY RATES In a broad sense, the levels of interest rates and yields on high-grade securities generally and the cost of credit to borrowers of various types. Customarily, however, the term is used in connection with open market rates in the New York money market, the money center of the nation.

The levels of money rates, like those of any other free market in a free enterprise economy, should be allowed to adjust themselves in accordance with supply and demand on a competitive basis. An aim of MONETARY POLICY, however, is to intervene in the money market and in the EXCESS RESERVES situation of banks, so as to influence both the cost and availability of bank credit in line with the desired objective of ease or restraint and the level of open market rates. The conventional instruments to effect monetary policy are open market operations and variation in rediscount rates and in legal reserve requirements.

High money rates undoubtedly reflect increased demand for credit relative to supply. The impact of monetary policy, however, should also be considered as a major determinant. When credit expansion progresses to the inflationary level, countercyclical monetary policy, by turning to the stage of restraint, will further tighten availability of bank credit and raise money rates, as the basic conditions necessary to arrest undue and inflationary credit expansion.

The open market rates most sensitive to supply and demand situation in money are the federal funds and Treasury bill rates. The REDISCOUNT RATE of Federal Reserve banks may act as a ceiling for the federal funds rate, if the member bank has not excessively turned to the discount window of the Fed. In turn the rediscount rate usually has been above the Treasury bill rates, although this is a generalization marked by numerous exceptions empirically, one reason for markup in rediscount rates would be to bring the latter into line with open market rates, particularly Treasury bill rates. One reason for keeping the rediscount rate above the Treasury bill yields would be to minimize any tendency to increased borrowings from Federal Reserve banks in order to invest in Treasury bills at the spread in net current yield. The same situation is true as to prime bankers acceptances, with 90-day maturities. Commercial paper rates, however, although for prime names, have longer maturities (usually four- to six-month paper), and these as well as banks' own prime lending rates to customers would therefore be above the rediscount rate.

MONEY RESERVE *See* BANK RESERVE, GOLD RESERVE, RESERVE.

MONEY RISK The risk of open market price depreciation in the price levels of high-grade obligations (and other types of high-grade fixed interest rate or dividend rate securities) should interest rates and yields generally rise and market prices of such securities have to adjust downward in order to afford the higher prevailing returns and yields, also known as interest rate risk.

See INVESTMENT, as well as the cross references under RISK.

MONEYS OF THE WORLD *See* FOREIGN MONEYS.

MONEY STOCK *See* MONETARY STOCK, MONEY CIRCULATION.

MONEY SUPPLY The Board of Governors of the Federal Reserve System targets three principal measures of money and the money supply for purposes of monetary control:

M1-A: Demand deposits of all commercial banks other than those due to domestic banks, the federal government, and foreign banks and official institutions, less cash items in the process of collection and Federal Reserve float; currency outside the Treasury, Federal Reserve banks, and the vaults of commercial banks; and traveler's checks of nonbank issuers.

M1-B: M1-A plus negotiable orders of withdrawal (NOW and automatic transfer services (ATS) accounts) at banks and thrift institutions, credit union share draft accounts, and demand deposits at mutual savings banks.

M2: M1-B plus savings and small-denomination time deposits at all depository institutions, overnight repurchase agreements at commercial banks, overnight Eurodollars held by U.S. residents other than banks at Caribbean branches of member banks, and money market fund shares

M3 M2 plus large denomination time deposits at all depository institutions and term repurchase agreements (RPs) of commercial banks and savings and loan associations.

L M3 plus other liquid assets such as term Eurodollars held by U.S. residents other than banks, bankers acceptances commercial paper Treasury bills and other liquid Treasury securities, and U.S. savings bonds. The "L" concept of the money stock is the broadest and comprehends liquid assets rather than components of the money stock customarily considered to be transactional in nature.

Presumably, M2 and M3 have assumed greater roles in policy. Some attention may be paid to M1A a measure of M1 similar to that which existed before financial deregulation led to the inclusion of a number of new types of accounts in the early 1980s.

The items included in the concept of the money supply are, in M1, varied in nature and in velocity (turnover in use as money in the transactions sense, or as a medium of exchange) and, in M2 and M3, varied in the degree to which they are readily substitutable for media of exchange. The appended table shows the growth of M1 M2, M3 and debt of domestic nonfinancial sector, 1980 to 1991.

Summary. Entirely aside from the crucial determination of what stance to adopt for MONETARY POLICY (tight or easy), determination of what to measure (and how to measure it) in the various components of money supply presents a continuing problem of definition and research for the Fed. See appended table below.

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Growth of Money and Debt
Percent

Period	M1	M2	M3	Debt of domestic nonfinancial sector
Annually, fourth quarter to fourth quarter				
1980	7.5	8.9	9.5	9.2
1981	5.4 (2.5)[2]	9.3	12.3	9.9
1982	8.8	9.1	9.9	9.2
1983	10.4	12.2	9.9	11.3
1984	5.4	8.0	10.8	14.1
1985	12.0	8.[illegible]	[illegible]	13.[illegible]
1986	15.5	9.2	9.0	13.8
1987	6.3	4.3	5.9	10.4
1988	4.3	5.2	6.4	9.4
1989	.6	4.8	3.6	8.2
1990	4.2	3.8	1.7	6.9
1991	8.0	3.1	1.3	4.7
Quarterly (annual rate)				
1991 1	5.2	3.5	3.3	4.5
2	7.4	4.3	1.8	4.0
3	7.5	1.1	1.1	4.9
4	11.1	3.3	1.2	5.2

[1] From average for fourth quarter of preceding year to average for fourth quarter of year indicated.
[2] Adjusted for shift to NOW accounts in 198[illegible].
[3] From average for preceding quarter to average for quarter indicated.

MONEY TRANSFER The transmission of funds from one place to another by means of the public or private telegraph. The larger offices of the telegraph companies provide for the transfer of funds by wire to other important centers. The paying office requires the person presenting the telegram that requests payment to prove identification, unless identification is waived.

The money transfer business is dominated by Western Union, the pioneer of money transfers, located in Upper Saddle River, N.J. Western Union has over 130 years experience in providing this service and has over 13,000 agents. In 1988, American Express introduced a product similar to that offered by Western Union, called a MoneyGram. Citicorp offered Express Money in 1987 but withdrew from the market 14 months later. Start-up costs are very high, and a broad distribution network is needed. Fees vary based on the amount of money transferred. In 1989, Western Union charged $14 for each $100. American Express charged $11 for the same service.

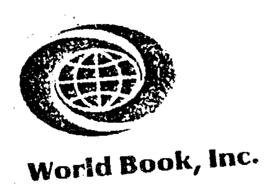
Money transfers are also made by means of private telegraph lines controlled by the larger banks, including the Federal Reserve banks. Suppose, for instance, that Bank B of Joliet, Illinois, which normally maintains balances with Chicago Bank A and New York Bank C, wishes to place itself in immediate possession of New York funds, which have suddenly become exhausted. Supposing Banks A, B, and C are correspondents with reciprocal balances, Bank B may instruct Bank A to telegraph funds for its account with Bank C. Upon receipt of the instructions over the private wire, Bank C will credit the account of Bank B and charge the account of Bank A. At the same time Bank A will charge the account of Bank B. Thus a transfer of funds has occurred without actual currency shipments. Confirmatory advices will be sent by mail from Bank A to Bank C, and return advices from Bank C to Bank A and from Bank A to Bank B.

MONEY VALUE The value of an asset expressed in terms of the national currency, as contrasted with its barter value in terms of other goods and commodities. Money value is the standard expression of value for labor, services, wealth of all kinds, etc., in advanced commercial societies. Stated money values may be nominal or current, depending on whether they are arbitrarily fixed or reflect current realizable values.

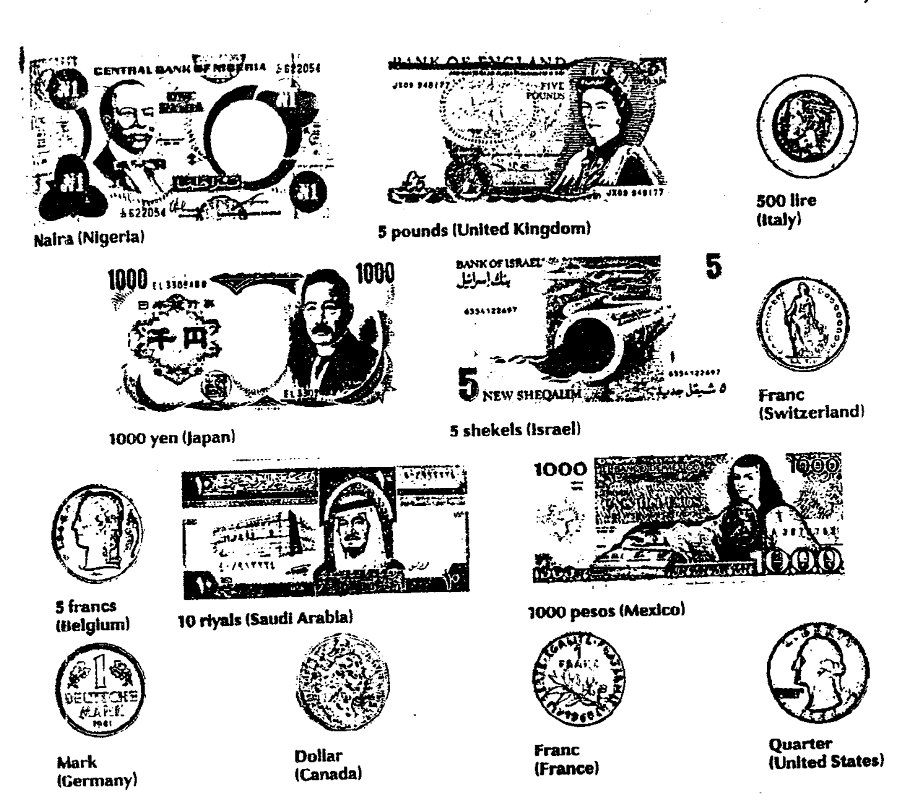
MONOMETALLISM A system in which only gold or silver is made the basis of the standard money of a nation, other metals being used for subsidiary monetary purposes only. This means that the coins of only one metal are endowed with full legal tender qualities and are coined without limitation as to quantity. Leading commercial nations now have a monometallic gold system, also known as the SINGLE STANDARD and distinguished from BIMETALLISM, but most countries are on a bullion standard and prohibit or restrict internal circulation of gold coin.

M Volume 13

The World Book Encyclopedia



World Book, Inc.
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·s and coins from around the world look different and have different names because each ·ry has its own system of money. The money from nearly all countries consists of paper or of ·er nickel and other metals that have little value by themselves

·oney

ney is anything that is generally accepted by people ·change for the things they sell or the work they do. ·l and silver were once the most common forms of ·y. But today money consists mainly of bank notes, ·s made of various metals, and deposits held at ·s.

·ch country has its own basic unit of money. In India, ·xample, the basic unit is the rupee. France uses the · Indonesia, the rupiah, Japan the yen, Philippines, ·eso, the Soviet Union the ruble, the United King· ·the pound, and the United States, the dollar. The ·y in use in a country is called its *currency*.

·oney has three main uses. First, and most impor· ·it is a *medium of exchange*—that is, something peo· ·ill accept for their goods or services. Without a ·um of exchange, people would have to trade their ·s or services directly for other goods or services. If ·wanted a bicycle, you would have to find a bicycle ·r willing to trade. Suppose the bicycle owner ·d skis in exchange for the bike and you did not ·kis. You would then have to find something a ski owner or ski maker wanted and trade it for skis to give the bicycle owner. Such trading, called *barter*, can take much time. A modern, industrialized country could not function without a medium of exchange.

A second use of money is that it serves as a *unit of account*. People state the price of goods and services in terms of money. In the United States, for example, people use dollars to specify price, just as they use hours to express time and kilometres to measure distance.

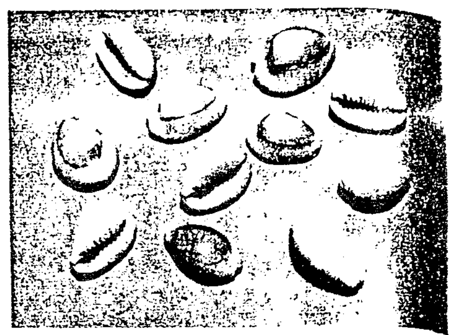
A third use of money is as a *store of wealth*. People can save money and then use it to make purchases in the future. Other stores of wealth include gold, jewels, paintings, property, and stocks and bonds.

Any object or substance that serves as a medium of exchange, a unit of account, and a store of wealth is money. To be convenient, however, money should have several qualities. It should come in pieces of standard value so that it does not have to be weighed or measured every time it is used. It should be easy to carry so that people can carry enough money to buy what they need. Finally, it should divide into units so that people can make small purchases and receive change.

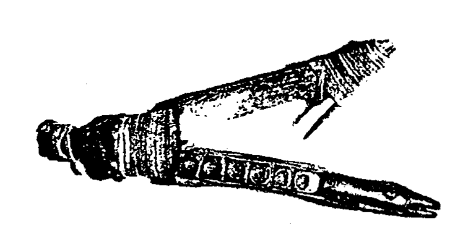
In the past, people used beads, cocoa beans, salt, shells, stones, tobacco, and other things as money. But



Barter at a Peruvian marketplace



Cowrie shells (Africa, Asia, and Australia)



Fishhook (Northwest Coast of North America)



Trade beads (Africa)

The development of money began as people came to accept certain goods as mediums of exchange. Before then all people, like those at the upper left, used *barter* (the exchange of goods for other goods) to get what they wanted. The other pictures show former mediums of exchange

above all, they used such metals as copper, gold, and silver. These metals could be easily shaped into convenient durable money.

Today, most money consists of paper. The paper itself is of little value, but it is accepted in exchange. People accept pieces of metal or paper in exchange for work or goods for only one reason: They know that others will take the same metal or paper in exchange for the things they want. The value of money therefore results from the fact that everyone will accept it as payment.

How money developed

Early people had no system of money as we know it. To get the things they wanted, people used the barter system of trading. Gradually, people learned that almost everyone would accept certain goods in exchange for any product or service. These goods included animal hides, cattle, cloth, salt, and articles of gold or silver. People began to use such merchandise as mediums of exchange much as we use money.

Many people still use barter, especially in the developing countries of Africa, Asia, and Latin America. Millions of families in these countries live by farming and produce barely enough food to meet their own needs. As a result, they seldom acquire any money and must use barter to obtain the things they want. People in industrial countries also turn to barter if money become scarce or worthless. For example, barter became widespread in Germany after the country's defeat in World War II (1939-1945). German money became almost worthless, and people refused to take it. Instead, they bartered for most goods and services. They also used cigarettes, coffee, and sugar, which were in short supply, as mediums of exchange.

The first minted coins may have been made during the 600's B.C. in Lydia, a country in what is now western Turkey. The coins were bean-shaped lumps of *electrum* a natural mixture of gold and silver. The coins had a stamped design to show that the king of Lydia guaranteed them to be of uniform value. The designs saved people the trouble of weighing each coin to determine its value. Traders accepted these coins instead of cattle, cloth, gold dust, or other goods as a medium of exchange. Other countries saw the advantages of the Lydian coins and began to make their own coins.

Many historians believe that coins were also invented independently in ancient China and in India. At first, the Chinese used knives, spades, and other metal tools as

diums of exchange. As early as 1100 B.C., they began use miniature bronze tools instead of real ones. In e, the little tools developed into coins.

Coins today have many of the same features that they d in ancient times. For example, they have a govern-nt-approved design stamped on them, like the coins ancient Lydia.

The **development of paper money** began in China, obably during the A.D. 600's. The Italian trader Marco lo travelled to China in the 1200's and was amazed to e the Chinese using paper money instead of coins. In ook about his travels, Polo wrote: "All his [the Chinese peror's] subjects receive it [paper money] without sitation because, wherever their business may call em, they can dispose of it again in the purchase of erchandise they may require."

In spite of Polo's description, Europeans could not un-erstand how a piece of paper could be valuable. They d not adopt the use of paper money until the 1600's, when banks began to issue paper notes, called *bank notes,* to depositors and borrowers. The notes could be exchanged for gold or silver coins on deposit in the bank.

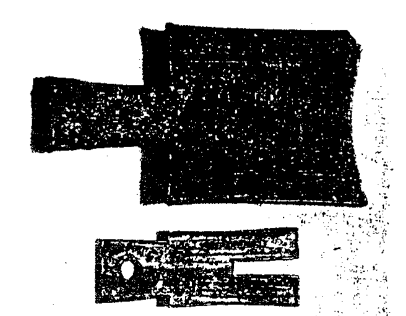
Some of the first paper currency in North America consisted of playing cards. This playing-card money was introduced in Canada in 1685. Canada was then a French colony. Money to pay the French soldiers stationed there had to be shipped from France. Shipments were often delayed, however, and cash grew so scarce that the colonial government began to issue playing cards as currency. Each card was marked a certain value and signed by the governor. Such playing-card money circulated for more than 70 years.

Until the 1800's, most of the paper money in circulation was notes issued by banks or private companies. Gradually, governments and central banks took over the issuing of banknotes. By the late 1900's, only a few commercial banks had the right to issue banknotes.

e first coins and paper money



e of the **first coins** was bean-shaped gold *stater,* ve. It was made in Lydia ng the 500's B.C.

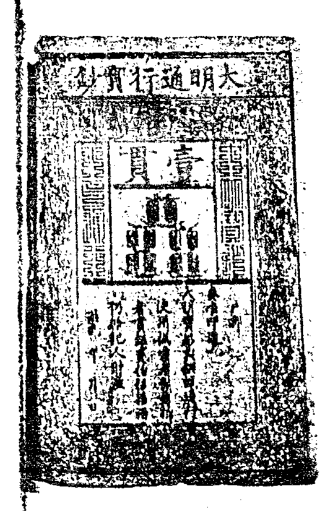


iature tools, such as the de and hoe at the right, re mediums of exchange in na as early as 1100 B.C.

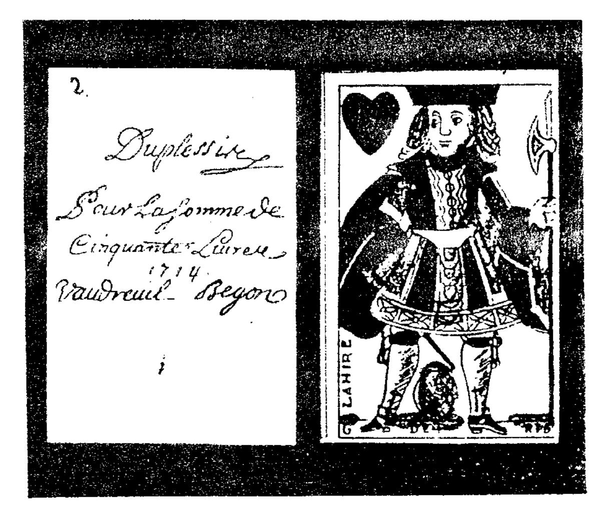




An ancient Greek coin called a *tetradrachm* was issued during the 400's B.C. The front of the coin, *above left,* had a portrait of the goddess Athena. An owl was stamped on the back, *above right.*



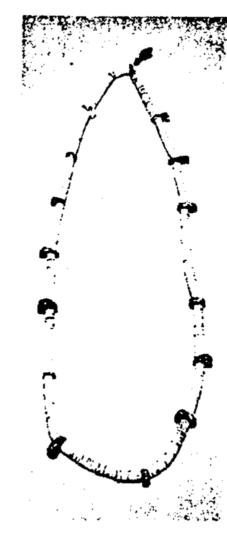
er money was first used in China. This was printed on bark paper in the 1300's



Playing-card money was used in Canada when it was a French colony during the 1600's and 1700's. The colonial governor signed the back of each card.

Money in the North American Colonies

Money was scarce in the North American Colonies. Paper currency was seldom used, and the British did not allow the colonies to mint coins. As a result, the colonists used any foreign coins they could get. Indian wampum and other goods also circulated as money.



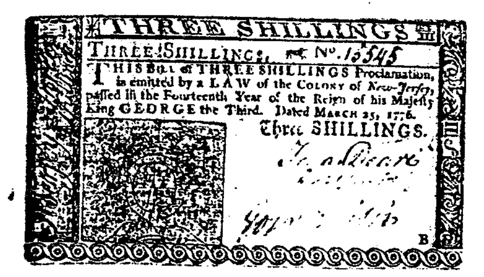
Wampum, which consisted of beads made from shells, was used by the Indians to decorate garments and keep records. The colonists, who had few coins, used it as money. Most wampum was made into necklaces or belts.



The oak-tree shilling was one of the first coins made in Massachusetts. The colony began to issue coins like the one above in 1660.



The escudo was used throughout the Americas. The 8-escudo coin above was minted in the reign of King Ferdinand VI of Spain.



A 3-shilling note, *left,* was issued by the colony of New Jersey in 1776. A number of colonies issued their own paper currency.

How money is manufactured

Minting coins. The production of a new coin begins with artists' proposed designs for the coin. After government officials select a design, an artist constructs a large clay model of the coin. Most models are about eight times the size of the finished coin. The artist does not add details because the clay is too soft. Instead, the artist makes a mould of the clay model and then makes a plaster cast from the mould. The plaster is hard enough to enable the artist to carve fine details. A machine called a *reducing lathe* traces the finished plaster model and carves the design, reduced to coin size, onto a soft piece of steel called a *master hub.* The master hub is heat-treated to harden it. A special machine takes an impression of the hub to make a set of steel tools called *master dies.* These dies are used to stamp copies of the master hub called *working hubs.* The working hubs are employed, in turn, to make *working dies,* which stamp the coins. The master hub and master dies are stored and used to make more hubs and dies after the first ones wear out.

Bars of metal are heated and squeezed between heavy rollers into strips the thickness of a coin. A machine punches out smooth discs of metal, called *blanks,* from the strips. The blanks are the size of coins but have no design. The blanks are fed into an *upsetting machine* which puts a raised rim around the edge of each one. Then, they are fed into a *coining press.* The press uses two working dies to impress the coin's design on both sides of each blank in one operation.

The mint ships the finished coins to a central bank or national bank for distribution to commercial banks. Central bank also removes worn and damaged coins from circulation. The mint melts these coins and uses the metal to make new coins.

Printing paper money. The production of a new note begins when artists sketch their designs for it. The secretary of the treasury must approve the final design. Engravers cut the design into a steel plate. A machine called a *transfer press* squeezes the engraving against a soft steel roller, making a raised design on its surface. After the roller is heat-treated to harden it, another transfer press reproduces the design from the roller 32 times on a printing plate. Each plate prints a sheet of 32 notes. Separate plates print the two sides of the notes.

Government printing factories generally use high-speed presses to print sheets of paper currency. The design is printed first. Then security features such as seals and serial numbers are added in a separate operation. The sheets are cut into stacks of notes. Imperfect notes are replaced with new ones called *star notes.* Each star note has the same serial number as the note it replaces but a star after the number shows that it is a replace-

ent note. The notes are shipped to a central bank, which distributes them to commercial banks.

Most small value notes wear out after a year or two in circulation. Larger denominations last for years because they are handled less often. Banks collect worn-out notes and ship them to a central bank for replacement. The central bank destroys worn-out money.

Money and the economy

The quantity of money in a country affects the level of prices, the rate of economic growth, and therefore the amount of employment. If the money supply increases, people have extra money to buy things, and their demand for products grows. In response to the growing demand, manufacturers hire more workers to increase output. Earnings rise and spending increases, leading to further economic growth. However, if output cannot keep pace with demand, prices will increase. A continuing rise in prices is called *inflation.* Inflation may cause problems for people whose income does not keep pace with rising prices.

If the money supply shrinks, people have less to spend. Goods and services remain unsold. Prices fall. Manufacturers cut back on production, and many businesses lay off workers.

The main economic goals of nearly all countries are to promote economic growth and high employment with a minimum increase in prices. A government's chief methods of promoting these goals are by its *monetary policy* and its *fiscal policy.* Monetary policy refers to how a government manages the nation's money supply. Fiscal policy refers to a government's taxing and spending programmes. To stimulate the economy, a government may increase the money supply, reduce taxes, or boost its own spending.

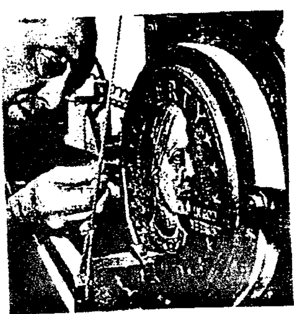
The following discussion deals mainly with monetary policy. For information on fiscal policy, see **Economics** (Economic stability).

The value of money is defined by economists as the quantity of goods and services that the money will buy. If prices go up or down, the value of money also changes. A major aim of any government's monetary

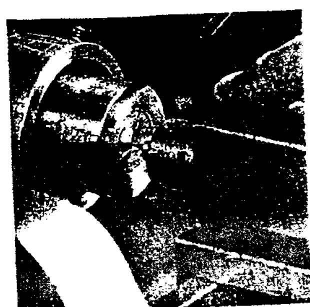
How coins are made Coins are made in a government factory called a mint. Bars of metal are rolled into strips. A machine punches coin-sized discs, called *blanks,* out of the metal strips. The blanks are fed into a *coining press,* which stamps a design on both sides of each blank.



Designing a new coin starts with a number of sketches. After a design has been selected, an artist makes a large model of the coin.



Reducing the design to coin size is done by a *reducing lathe.* This machine traces the model coin and carves it in miniature on a steel *hub.*



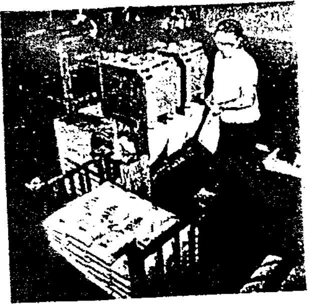
Cutting the hub is done by a sharp tool on the other end of the reducing lathe. The hub is heat-treated to harden it and used to make a set of coin-stamping *dies.*



Screening the blanks removes imperfect ones. The perfect blanks are fed into the coining press, which uses the coin-stamping dies to produce the design.



Inspecting the newly minted coins helps find defective ones. Imperfect coins are melted down, and the metal is then used over again.



Counting and bagging the finished coins is done by machines. The mint ships the coins to a central bank for distribution to the public.

policy is to keep prices stable and thus preserve the value of money, also called its *purchasing power*. Today, people worry most about inflation, which lowers the value of money. If prices double in Australia, for example, a dollar buys only half as much as before, and so the value of money has dropped one-half. You sometimes read or hear such a statement as "Money today has only one third its former value." That statement means three money units buy only as much as one unit bought at an earlier time. The earlier time chosen for comparison is called the *base period*. Another way of describing the same price rise is to say that prices have risen 200 per cent since the base period. The *rate of inflation* is the rate at which prices in general are rising and the rate at which the value of money is falling.

Rapid, uncontrolled inflation can severely damage a country's economy. For example, prices in Germany increased 10 billion times from August 1922 to November 1923. Such severe inflation is called *hyperinflation*. The value of the German mark dropped so sharply and so rapidly that employers paid workers twice a day. Marks became so worthless that no one would take them, and people began to use barter instead of money. Employers paid workers by giving them some of the goods they produced. People spent so much time trading for the things they needed that production nearly came to a halt. The hyperinflation ended after the government introduced a new currency.

Inflation has many causes. But in most cases, prices cannot continue to rise without increases in the quantity of money. There never has been severe inflation without a large expansion in a nation's money supply.

Definitions of the money supply. The money supply includes more than just coins and paper money. In fact, bank current account deposits are the most common form of money in many countries. In the United States, about three-fourths of all payments are made by cheque. Cheques are a safe and convenient medium of exchange. In addition, a cancelled cheque provides written proof that payment was made.

Economists define the money supply in various ways depending on which assets they include in their meas-

How paper money is made A government printing factory makes banknotes. The factory uses special paper and ink that have been manufactured to its specifications to produce long-lasting money. High-speed presses print sheets of 32 notes each. The sheets are then cut into separate notes.



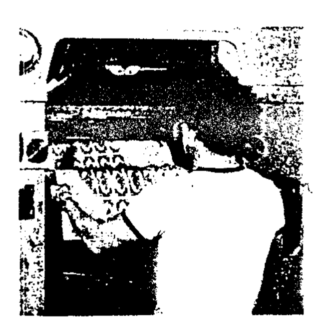
Designing a new banknote begins with a number of artist's drawings.



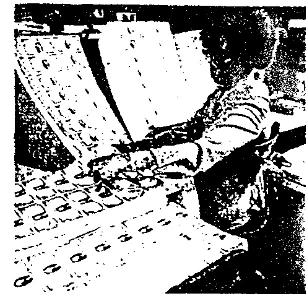
Making an engraving. An engraver cuts the design into a steel plate. A machine called a *transfer press* copies the engraving 32 times on a printing plate.



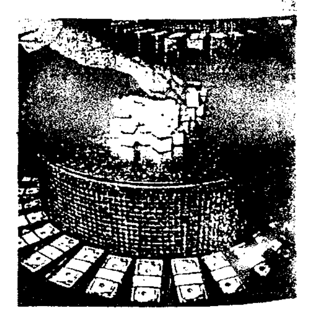
Inspecting the printing plate ensures that it has no flaws. During printing, paper will be forced into the engraved lines of the plate to pick up ink.



Printing is done by fast presses that print thousands of sheets an hour. Separate plates print the front and back of the notes. Serial numbers are added later.



Inspecting the new notes. The printed sheets are cut in half and examined. The inspectors mark any imperfect notes. Later such notes are replaced.



Counting and stacking are done by a machine that puts the notes in order of their serial numbers and bands them in stacks of 100 for delivery to banks.

ments. The definitions change as the banking system changes. Two major definitions of the U.S. money supply are called M-1 and M-2.

M-1 consists of current account deposits, also called *demand deposits;* traveller's cheques; and currency.

M-2 consists of M-1 plus money invested in savings accounts at commercial banks, at savings banks, and at savings organizations. Such savings, called *time deposits,* are not immediately available to make purchases. The saver first has to withdraw the money, and the bank or savings organization can require advance notice of withdrawal. However, most people can easily convert their savings to cash or current account deposits. In industrial countries, M-2 is generally several times the value of M-1.

How the money supply is determined. The size of a country's money supply is determined differently if the country uses *commodity money* or *fiat money.* Commodity money typically consists of valuable metals, especially gold or silver. Fiat money is of little value itself. But it has value because people are willing to accept it. To increase the likelihood of people accepting its money, a government may make the currency legal tender. Then, the law requires people to accept the money at face value.

If a nation uses commodity money, the money supply is determined by the cost of producing the metal and the rate of production. During the late 1800's and early 1900's, many countries were on the gold standard, which is a commodity money system. Each country promised to redeem its currency for a specified amount of gold. For example, a U.S. dollar was officially valued at about 26 grains (1.7 grams) of gold. The amount of money countries could issue depended on how much gold was being mined in the world. A decline in gold output during the 1870's and 1880's slowed the growth of the money supply and caused prices to fall. The economic problems ended only after the discovery of new gold fields in South Africa and after the invention of a more efficient method of extracting gold from the rocks in which it is found.

The United States and most other countries today are on the fiat money system. Under this system, the money supply does not depend on the production of any commodity. Instead, the national government controls the money supply. The government does so through its *central bank,* which is a government agency in most countries. A country's central bank issues currency, regulates the activities of the country's commercial banks, and performs other financial services for the government. The Federal Reserve System is the central bank of the United States. The central bank of India is the Reserve Bank of India. Other central banks include the Reserve Bank of Australia in Australia, Deutsche Bundesbank in Germany, Bank Ceannais na h'Éireann in Ireland, Bank Negara Malaysia in Malaysia, and the Bank of England in the United Kingdom.

The role of a central bank. Most countries have a single central bank, though in some countries the central bank has several offices or branches. Some central banks, such as the Bank of England, act as agents carrying out government decisions. Other central banks, such as the Federal Reserve in the United States, make their own decisions and carry them out. Most large commercial banks belong to the central banking system. Commercial banks use the central bank much as people use a bank in their community. Each commercial bank must keep a certain sum of money either as currency in its vaults or as deposits at its central bank. This sum is a percentage of the commercial bank's own deposits and is called a reserve requirement. The reserve requirement is set by the central bank. A member bank may withdraw any excess deposits at the central bank to get currency. It may also borrow from the central bank. The central bank may have the authority to set reserve requirements for all deposit-taking institutions.

The central bank can control the money supply in several ways. It may raise or lower the *discount rate* or *bank base rate,* which is the interest rate that commercial banks pay to borrow from central banks. Or the central bank may raise or lower reserve requirements. Raising the discount rate or the reserve requirement reduces the ability of banks to make loans and thus shrinks the money supply. Lowering the discount rate or the reserve requirement has the opposite effect on the money supply.

However, the central bank's chief means of adjusting the money supply is by buying and selling government securities. These activities are called *open-market operations.* If the central bank wants to increase the quantity of money, it makes an *open-market purchase.* It buys government securities from banks and other businesses and from individuals. The central bank pays for the securities with a cheque. The sellers now have more money than before, and so there is more money in the economy. When the sellers deposit the cheques at their bank, the supply of money may increase further. As a result, the quantity of money in the economy will rise by even more than the amount of the open-market purchase. To reduce the money supply, the central bank sells securities in an *open-market sale.*

The central bank's ability to control the money supply might make it seem easy to adjust the supply to promote the government's economic goals. For example, the central bank could expand the money supply whenever unemployment increased, thus creating more jobs. It could reduce the money supply whenever inflation occurred, thus holding prices down. But use of monetary policy to control the economy is far more difficult than it seems.

Monetary policy is often ineffective because changes in the money supply do not affect the economy immediately. If the effect of a change is long delayed, it may strike the economy at the wrong time. For example, the government or central bank might decide to increase the money supply in the hope of reducing joblessness within six months. But the drop in unemployment might not come for a year or more, by which time unemployment might have already begun to fall for other reasons. Instead of reducing joblessness, the central bank's action might then only fuel inflation.

The central bank's task is also difficult because it is likely to increase unemployment when it tries to reduce inflation, and vice versa. If the central bank fights inflation by reducing the money supply, employers may cut back on production and more workers will lose their jobs. If the central bank boosts the money supply to create more jobs, price increases may follow

In such cases, the central bank may have difficulty deciding what to do. Some economists believe that the best way to fight inflation and unemployment is by a gradual continuous increase in the money supply instead of frequent adjustments.

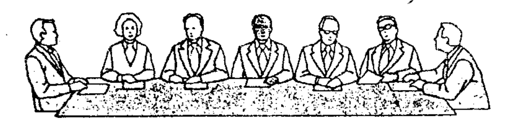
International finance

Much trade takes place between countries. For example, Americans buy French cheese and Japanese cars, and the French and Japanese buy American aeroplanes and blue jeans. Most imported goods must be paid for in the currency of the selling country. A car dealer in the United States who buys Japanese cars gets yen by buying them from a bank at the current *exchange rate.* An exchange rate is the price of one country's currency expressed in terms of another country's currency. If the exchange rate were 100 yen to the U. S. dollar, for example, the American dealer would have to buy 12,000 U.S. dollars in yen to pay for a Japanese car that cost 1.2 million yen.

Exchange rates are determined in foreign exchange markets. The rates vary from day to day in relation to in-

How a central bank adjusts the money supply

A central bank such as the Federal Reserve System of the United States, regulates its country's money supply. This chart shows how the Federal Reserve puts more money into circulation. To shrink the money supply, the Federal Reserve takes opposite actions.

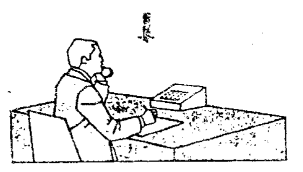


The Board of Governors of the Federal Reserve System reviews data on employment, industrial output, inflation, and other economic trends. It decides to increase the money supply.

The discount rate is the interest rate banks pay to borrow from the Federal Reserve. Lowering the rate encourages banks to grant loans.

Open-market operations involve buying and selling government securities. To boost the money supply, the Federal Reserve buys securities.

The reserve requirement is the amount of money banks must keep on reserve. Lowering the requirement lets banks make more loans.



An open-market trader of the Federal Reserve buys securities from dealers and pays by cheque. The dealers deposit the cheques in their banks, which must put part of the money on reserve but can lend the rest.



The money supply expands when banks make more loans because of a lower discount rate, open-market purchase, or lower reserve requirement.

Exchange Rates

An exchange rate is the price of one country's currency in terms of another country's currency. Exchange rates vary from day to day, depending on the international demand for different currencies. This table shows the exchange rate in United States dollars for many world currencies on May 31, 1991.

Country	Monetary unit	Price in U.S. dollars	Country	Monetary unit	Price in U.S. dollars
Algeria	Dinar	$ .06	Liberia	Dollar	[illegible]
Argentina	Austral	.0001	Libya	Dinar	3.46
Australia	Dollar	.76	Luxembourg	Franc	[illegible]
Austria	Schilling	.08	Madagascar	Franc	.0008
Bahamas	Dollar	1.00	Malaysia	Ringgit	[illegible]
Bahrain	Dinar	2.65	Malta	Lira	3.01
Bangladesh	Taka	.03	Mexico	Peso	.0003
Barbados	Dollar	.50	Mongolia	Tughrik	.30
Belgium	Franc	.03	Morocco	Dirham	[illegible]
Belize	Dollar	.50	Nepal	Rupee	.03
Bolivia	Boliviano	.28	Netherlands	Guilder	.52
Brazil	Cruzado	.004	New Zealand	Dollar	.58
Burma	Kyat	.16	Nicaragua	Gold cordoba	[illegible]
Burundi	Franc	.006	Niger	Franc	.003
Cameroon	Franc	.003	Nigeria	Naira	[illegible]
Canada	Dollar	.87	Norway	Krone	.15
Central African Republic	Franc	.003	Oman	Rial	[illegible]
Chile	Peso	.003	Pakistan	Rupee	.04
China	Yuan	.19	Panama	Balboa	1.00
Colombia	Peso	.002	Papua New Guinea	Kina	1.04
Costa Rica	Colon	.008	Paraguay	Guarani	.0006
Cuba	Peso	1.26	Peru	New sol	1.19
Cyprus	Pound	2.10	Philippines	Peso	.04
Czechoslovakia	Koruna	.03	Poland	Zloty	.00009
Denmark	Krone	.15	Portugal	Escudo	.007
Dominica	Dollar	.37	Qatar	Riyal	.27
Dominican Republic	Peso	.08	Romania	Leu	.02
Ecuador	Sucre	.001	Rwanda	Franc	.008
Egypt	Pound	.31	Saudi Arabia	Riyal	.27
El Salvador	Colon	.12	Senegal	Franc	.003
Ethiopia	Birr	.48	Sierra Leone	Leone	.004
Fiji	Dollar	.67	Singapore	Dollar	.57
Finland	Markka	.24	Somalia	Shilling	.0004
France	Franc	.17	South Africa	Rand	.30
Germany	Mark	.58	Soviet Union	Ruble	1.68
Ghana	Cedi	.003	Spain	Peseta	.009
Greece	Drachma	.005	Sri Lanka	Rupee	.02
Guatemala	Quetzal	.21	Sudan	Pound	.22
Guyana	Dollar	.009	Swaziland	Lilangeni	.35
Haiti	Gourde	.20	Sweden	Krona	.16
Honduras	Lempira	.18	Switzerland	Franc	68
Hong Kong	Dollar	.13	Syria	Pound	.05
Hungary	Forint	.01	Taiwan	Dollar	[illegible]
Iceland	Krona	.02	Tanzania	Shilling	.004
India	Rupee	.05	Thailand	Baht	.04
Indonesia	Rupiah	.0005	Trinidad and Tobago	Dollar	.24
Iran	Rial	.0007	Tunisia	Dinar	[illegible]
Iraq	Dinar	3.22	Turkey	Lira	.0002
Ireland	Pound	1.55	Uganda	Shilling	[illegible]
Israel	Shekel	.42	United Arab Emirates	Dirham	.27
Italy	Lira	.0008	United Kingdom	Pound	[illegible]
Jamaica	Dollar	.11	United States	Dollar	1.00
Japan	Yen	.007	Uruguay	Peso	[illegible]
Jordan	Dinar	1.47	Venezuela	Bolivar	.02
Kenya	Shilling	.04	Yugoslavia	Dinar	[illegible]
Korea, South	Won	.001	Zaire	Zaire	.0003
Kuwait	Dinar	3.46	Zambia	Kwacha	[illegible]
Lebanon	Pound	$ .001	Zimbabwe	Dollar	.33

Source: BankAmerica Corporation

ternational demand for various currencies. If Americans buy more Japanese products, for example, the U.S. demand for yen increases and the yen rises in price against the dollar. This system is known as *floating exchange rates* or *flexible exchange rates*.

Most countries do not allow the exchange rate for their currency to float freely, however. Each country has holdings of foreign currency. If the exchange rate falls too far, the government will use some of its foreign holdings to buy enough of its own currency to stabilize the exchange rate.

The balance of payments is the difference between a nation's receipts of foreign currency and its expenditures of foreign currency. A country's balance of payments affects its exchange rate. The world price of a country's currency tends to rise if the country's receipts exceed its expenditures. This condition is called a *balance-of-payments surplus*. A country's currency will tend to decline on world markets if more money flows out of the country than comes in. This condition is called a *balance-of-payments deficit*.

The primary influences on the balance of payments are income levels and rates of inflation. Suppose income levels rise more quickly in other countries than in Australia. People in other countries then will increase their imports of Australian goods. Australia will export more than it imports, creating a balance-of-payments surplus and causing the world price of Australian dollars to increase. If inflation causes prices to rise more quickly in Australia than abroad, foreign goods become cheaper for Australians to buy and they import more. This situation creates a balance-of-payments deficit and causes the Australian dollar to drop in price.

International reserves. Each country has official holdings of foreign currency that it uses to stabilize change rates and to pay international debts. These holdings are called *international reserves*. The U.S. dollar plays a special role in international reserves, partly because the United States is one of the world's leading trading nations. Many countries keep nearly all their international reserves in U.S. dollars, and most countries are willing to accept payment in dollars. To some extent, the U.S. dollar thus functions as an international medium of exchange. Countries which belong to the European Community, such as France, Germany, Italy, and the United Kingdom, increasingly make payments from their reserve in *ecus* (European Currency Units).

The International Monetary Fund (IMF) is an organization that works to improve financial dealings between countries. The International Monetary Fund has introduced a type of international reserves called *Special Drawing Rights (SDR's)*. Member countries of the IMF can use these reserves to settle accounts among themselves. Unlike other reserves, SDR's exist only as entries on the account books of the IMF. Some economists think SDR's eventually will become widely used as an international medium of exchange.

Related articles in *World Book*. See Bank and Economics
See also the following articles:

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Dime
Dollar
Drachma
Franc
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Krona
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Quarter
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Counterfeiting
Depreciation
Depression
Gold (Money)
Gold standard
Gresham's law
Income
Indian, American (Money)
Inflation
Investment
Legal tender
Mill
Mint
Silver (Uses of silver)
Trade (The use of money)
Wampum

Outline

I. How money developed
  A. The first minted coins
  B. The development of paper money
II. How money is manufactured
  A. Minting coins
  B. Printing paper money
III. Money and the economy
  A. The value of money
  B. Definitions of the money supply
  C. How the money supply is determined
  D. The role of a central bank
IV. International finance
  A. The balance of payments
  B. International reserves

Questions

How did people obtain the things that they needed before money?
When were coins invented?
Where was the first paper money used?
What were some of the things that people in the past used as money?
What is an exchange rate?
How does inflation affect the value of money?
How does a balance of payment deficit affect a country's economy?
What is the role of the International Monetary Fund (IMF)?

VIII MONEY, BANKING, TRADE
AND
PUBLIC FINANCE

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3rd Update Edition, 1996



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11 MONETARY STANDARDS

The term 'monetary standard' comprises the whole monetary system whose foundation consists of a particular standard of value. Notwithstanding that the terms *monetary standard* and *standard of value* are so closely linked that they appear identical at times, in usage the former is more inclusive than the latter. While a standard of value refers to a monetary unit, such as the silver rupee, the gold dollar or the gold sovereign, which measures economic values in the system, a monetary standard covers within its scope besides the designation of a particular standard of value all other regulations and arrangements of a monetary nature, such as legal provisions relating to the issue of fractional coins, government paper money and bank notes, rules about the export and import and the purchase and sale of specie, etc. In short, although a particular standard of value is the *core* of any particular monetary standard, the latter is much more than a standard of value. For example, the pre-war gold-coin standard was built upon the gold currency which consisted of the gold dollar in the United States and the gold sovereign in England. To conclude, however, from this that the gold dollar was the gold-coin standard would be an error since it was much more than being merely the gold dollar. The gold dollar was nothing more than the standard of measurement of economic values whereas the gold-coin standard, apart from including the gold dollar, comprised the provisions relating to the manner in which the gold dollar could be coined, the government dealings—purchase and sale—in gold could take place, gold could be exported out of and imported into the country, rules governing the relationship between the official gold reserves and the issue of currency, etc. From this it follows that a monetary standard may be defined as a monetary system raised on the foundation of particular or specific standard of value. A monetary standard can be easily established by choosing an accounting unit together with determining the price of the chosen standard of value. Where the standard of value chosen happens to be a metal, a coinage operation might be undertaken. The simple monetary standard would value a unit coin at unity — for example, the gold sovereign was valued as one pound. Realisation of a simplistic monetary standard requires a legal tender law mentioning the legal tenders which may be given in the discharge of debt obligations requiring the payment of money. Central bank notes might be the

legal tender in which case the *simplistic* standard of value would be 'paper.' It might also be provided by monetary legislation that bank notes are convertible on fixed terms into specie. In such a situation, there would be another sense of the 'standard.' In that other sense, there would be a specie standard. While the first sense of standard relates to the standard of value, the second sense pertains to the convertibility of monetary claims.

Kinds of Monetary Standard

Although various types of monetary standards have been in vogue from very early times, the two main types of monetary standards are known as the *commodity money standard* and *the fiat money standard*. A commodity money standard refers to a monetary system in which the value of the money unit is kept at par with the value of some stated quantity of a particular commodity or of a given set of commodities. Any commodity-banana, tobacco, goat-skin-may be chosen for the purpose. In the nineteenth century and the present century, commodity standards have been established in the form of silver standard, bimetallic standard and gold standard. Thus, a country is said to follow the gold standard, if the money unit is declared in terms of a specified quantity of gold of certain given purity and if the monetary institutions in the country follow certain rules. If the money unit consists of gold coins and if the coins have a face value which equals the market value of their metallic contents, the country is said to be on the gold-coin standard. Similarly, monetary systems founded upon the standard of value expressed in terms of silver are termed as silver standard while those whose foundations are based upon the standard of value expressed simultaneously in gold and silver have been designated as bimetallic standard.

In any *commodity standard*, be it a gold, a silver or a bimetallic or any other commodity money standard, the value of a nation's money unit should be stabilised in terms of the particular selected commodity. In order to achieve this purpose, the monetary authority must

(1) define the quantitative relationship between the money unit and the commodity, and

(2) stand ready to buy and sell at the fixed stated price all quantity of the commodity that is supplied and demanded by the public.

A fiat money standard is a monetary system in which the value of the money unit is not kept equal to the value of a given quantity of a particular commodity or commodities. The origin of the fiat standard lies in the deliberate issue of the medium of exchange (usually paper currency) which has a negligible commodity value, which is irredeemable at some fixed ratio in a particular commodity and whose value is independent of that of any commodity. An inconvertible paper currency issued by government perhaps best symbolises a fiat standard. A fiat money standard may also exist when a

country which was previously maintaining a metallic standard—say a gold standard-suspends the redeemability of the monetary unit into the monetary metal and allows its value to fall below the market value of the metal in which it was formerly redeemable. As an example, we may cite the case of the United States of America which was on a fiat standard during 1862-1879 because the issue of over $400 million of Greenbacks and much larger expansion of money in the form of bank notes and deposits caused inflation with the result that during the Civil War dollar was neither redeemable in gold nor was its value, unit for unit, equal to that of gold. During this period, the dollar did not have any fixed official value in terms of any metal.

Metallic money standards occupy a prominent place in the history of the commodity standard. While some economists have looked upon the metallic standards as profound expressions of moral integrity and economic logic, others, including John Maynard Keynes, have viewed them as peculiar mixtures of ignorance, superstition and psychosis. Among the metallic standards, gold standard is, perhaps, the most known, being almost universally adopted for more than four decades before it finally collapsed during the *thirties*. Keynes was opposed to the gold standard because he felt that the mercurial discipline of an international gold standard took away from the central banking authority the power or discretion to 'manage money' in the sense of manipulating interest rates and running deficits and surpluses in the national interests. The gold standard has been opposed even by the advocates, such as Milton Friedman, of non-discretionary central banking policies on the plea that it prevents adherence to rules which should govern the time profile of the money supply. For example, according to Friedman, to cope with the rate of economic growth the aggregate money supply should expand at an annual rate of around 5 per cent. But under the gold standard rules there is nothing to guarantee that the growth rate of money supply will be maintained at this or any other level consistent with the requirements of economic growth over time. Instead, the money supply will expand or contract according to the supply trends of gold. As opposed to the views held by Keynes and Milton Friedman, the adherents of strict gold standard cite the inflationist tendencies of governments in the twentieth century to justify the need for imposing the gold standard discipline on the arbitrary use of power by impecunious governments which resulted in the reckless overissue of paper currency ending in the frequent breakdowns of the monetary systems and world economic order.

Since commodity standard has in practice mostly appeared in the form of metallic standards which again have operated either as bimetallic standard with the monetary unit being simultaneously defined in terms of two metals (in practice gold and silver) or as monometallic standard (in practice gold standard and silver standard, the history of the gold standard being far more

rich than that of the silver standard) we may now discuss the bimetallic and monometallic standards *seriatim.*

BIMETALLIC STANDARD

In a bimetallic standard two metals (customarily gold and silver) are simultaneously monetised and their nominal or money values as legal tender are fixed. Both the gold and silver coins circulate as unlimited legal tender. Furthermore, coinage as well as exports and imports of both the metals are free. In a strict bimetallic standard, it is provided by legislation that a gold coin weighing x grains and a silver coin weighing y grains each denoted 'one rupee' could be given at par against debt contracts in rupees (money of account). It is also possible to think of a pure bimetallic standard existing in the form of bimetallic bullion standard in which the government would stand ready to give to the tenderer of x grains of gold or y grains of silver a paper rupee and to provide the tenderer of a paper rupee with x grains of gold or y grains of silver of specific purity according to his wish.[1]

In practice, however, such a bimetallic bullion standard has never been in existence. What has indeed been put into practice is the bimetallic coin standard with both gold and silver coins simultaneously in circulation as unlimited legal tender monies with fixed mint par ratios.[2]

Whether the bimetallic standard put into practice is a bimetallic coin standard or a bimetallic bullion standard, there is established a fixed *mint ratio* between gold and silver and at this fixed mint ratio the government stands ready to convert either metal into the other to a tenderer as he wishes. For example, in the United States of America in 1834 the gold dollar contained 23.22 grains of pure gold and the silver dollar contained 371.25 grains of pure silver with the result that the weight of the silver dollar was sixteen times that of the gold dollar. Consequently, the mint ratio between silver and gold was 16:1. Either dollar could be tendered in discharge of one

[1]Maintenance of such a bimetallic bullion standard requires the possession of large enough stocks of both the metals on the part of government in order to be able to keep the standard in operation, whereby the two metallic coins are convertible into one another at some fixed mint ratio. Failure to maintain this convertibility will lead to the disappeamce of the 'under-valued' coin from circulation.

[2]Stressing the point that notwithstanding the non-existence of a bimetallic bullion standard such a standard is possible Kemmerer has stated: "...although bimetallism under a gold and silver bullion standard, without the coinage of either gold or silver standard money but with the inter-convertibility of paper money with gold and silver bullion at fixed rates of equivalence has never existed such a system is possible and would be entitled to be called 'true bimetallism' " (Edwin Walter Kemmerer, *Money* 1937 pp 83 84)

dollar claim. Earlier in 1792 by virtue of the Coinage Act of 1791, the country had adopted a bimetallic standard and the dollar was made equivalent to 24.75 grains of fine gold and to 371.25 grains of fine silver. Thus, the 'mint ratio' between silver and gold was 15:1. This meant that officially in 1791 an ounce of fine gold was equivalent to 15 ounces of fine silver while in 1834 one ounce of gold was officially equivalent to 16 ounces of silver. The government stood ready to mint, at these mint ratios, all the gold and silver offered to it by public and people were free to melt or export coins. The monetary system in the United States was bimetallic until 1873 when silver was demonetised. The supporters of the cause of silver and the inflationists called this action of the government "The Crime of 73" condemning the gold standard. France which adopted bimetallism in 1803 remained on the bimetallic standard until 1874. Apart from France, Belgium, Switzerland, Italy, and Greece also maintained the bimetallic standard. However, since the beginning of the present century no country has maintained its monetary system on a bimetallic standard, although in the United States an abortive attempt was made during the *thirties* by advocating free coinage of silver in order to increase the money supply to prevent further fall in prices. The object of the Silver Purchase Act of 1934 passed by the US Congress was to raise the proportion of silver to gold in the official monetary reserves of the nation by enabling the government to buy silver at home and abroad.

Merits of Bimetallism

The supporters of bimetallism have claimed that a bimetallic standard is superior to the simple gold or silver standard because it (*i*) permits easier expansion of the monetary reserves of the world, (*ii*) allows for greater stability of the general price level, and (*iii*) makes possible the exchange rate stability not only between the bimetallic standard countries but also between the bimetallic standard countries and both the gold and the silver standard countries.

The first argument favouring bimetallism was more convincing before and immediately after World War I when it was believed that world's total stock of monetary gold was inadequate to suffice the needs of world economy. Today, even though world's total monetary gold stock is quite substantial, being in the neighbourhood of worth $ 50 billion in value, the total is quite small looking to the sizeable expansion of world trade. The growing pressure for international liquidity can be substantially eased if silver is added to world's official monetary reserves.

The second argument that bimetallism promotes greater price stability compared to either gold or silver standard holds good on the ground that fluctuations in the production of gold and its use in the arts by causing fluctuations in the supply of and demand for gold cause changes in the value

of gold. Similar changes, and perhaps of greater magnitude, are caused in the value of silver from changes in the forces of supply and demand. To the extent changes in the supply of and demand for one metal are offset by changes in the supply of and demand for the other metal, the combined monetary reserves of both metals would be subject to milder fluctuations than if the monetary reserves consisted either only of gold or silver. This is known as the *compensatory action* of bimetallism inducing greater price stability.

Thirdly, since the value of the monetary unit of a bimetallic standard nation is simultaneously determined both in gold and silver, the exchange ratio between its monetary unit and the monetary units of both the gold and silver standard countries is easily determined and the market rate of exchange would not deviate far from the mint parity exchange rate, provided no curbs were placed on specie flows in and out of the country. As against this, foreign exchange rate between a gold standard country and a silver standard country would fluctuate widely in keeping with the changes in the market value of silver bullion in the gold standard country. Bimetallism has been strongly supported by the inflationists who have discarded gold standard as having an inherent bias toward deflation.

Demerits of Bimetallism

As against the above arguments advanced in favour of adopting the bimetallic standard, it has been strongly argued by the critics of bimetallism that what in theory is bimetallism turns out in operation to be a monometallic standard with only either gold or silver coins in circulation in the country. In short, it is maintained that it is difficult to keep bimetallism in operation in the economy. Since in actual practice, the market ratio between gold and silver will frequently fluctuate according to changes in the market forces of demand and supply of both the metals, with a fixed mint ratio there will emerge the frequent phenomena of overvaluation and undervaluation of the two metals with the undervalued metal disappearing from its monetary use. In effect, it is simply the application of Gresham's Law under bimetallism. Discarding bimetallism, Gayer has stated that it "combines the worst features of both the gold and silver standards while it is actually in operation and tends in practice to become gold or silver monometallism." It is not, however, necessary that disparity between the mint ratio and the market ratio between the two metals will lead the undervalued metal to disappear from coinage, but it will instead lead to an agio phenomenon. Stressing this point Hawtrey has stated:

"If a debtor holds some coins which are, and others which are not, worth more as metal than as money, his creditor cannot compel him to pay the former The debtor may stipulate that the more valuable coins be accepted at something above their nominal value. Usually the inconvenience of making payments in a medium the money value of which varies with the

market prevents this, but this is not invariably the case. In England in the later part of the seventeenth century the gold coin issued from the mint was the guinea, which was intended to be worth twenty shillings of silver. This represented an under-valuation of gold as compared with its market price in England and abroad, and according to Gresham's Law the guinea ought to have been driven out from circulation. But at that period the growing volume of trade made so bulky a medium as silver intolerably inconvenient. The merchants or goldsmiths or bankers found gold indispensable for large payments. Instead of the twenty shilling guinea being driven out of circulation, its nominal value became a dead letter and it regularly passed for 21s 6d or 23s.

A legal tender law can do no more than prescribe the means of discharging a debt expressed in the existing unit of account. People who choose to make bargains in terms of another medium can thereby evolve a new unit of account. When a seventeenth century merchant made a bargain in terms of guineas, the guinea became for that purpose the unit of account, and fulfilment of the contract required either delivery of guineas or a set off against another guinea debt. A court of law, it is true, if it awarded damages for a default on the contract, would reckon them in pounds, shillings, and pence, but the current silver money would be the compensation for the failure to deliver guineas, not a fulfilment of the obligation."[3]

It has also been argued by the critics of bimetallism that it would be difficult to adopt and operate under a bimetallic standard in the absence of sincere international cooperation. This, in effect, means that unless all the countries of the world, or at least all the major world countries, adopted bimetallism at a uniform mint ratio Gresham's Law would operate and there would be the problem of exportation of one or the other metal from a bimetallic country if its value in the foreign market exceeded its value at home. According to the critics, although it is theoretically feasible to envisage an international bimetallic standard adopted throughout the world at a uniform mint ratio between the two metals, in practice the possibility of this happening is extremely remote nor has such an international bimetallic standard ever existed in the past.

GRESHAM'S LAW

Gresham's Law operates in an economic system having two or more kinds of money units. The theory underlying Gresham's Law is simple and may be stated in these words: Where in a country two kinds of money with equal nominal value happen to be simultaneously in criculation and if their market

[3]R.G. Hawtrey, *Currency and Credit*, 1950, pp. 48-49.

values are different, then a situation develops in which one currency becomes overvalued (in the sense that its money value exceeds its commodity value in the market) while the other becomes undervalued (its commodity value in the market exceeds its value as money unit). The undervalued currency disappears from circulation. This general tendency of the overvalued currency driving away from circulation the other undervalued currency[4] is termed as the Gresham's Law since it was Sir Thomas Gresham, master of the mint in Queen Elizabeth First's reign, who first explained to the astute Queen the reason for the quick disappearance from circulation of the superior coins of the Queen issued by the mint whereas the old debased coins bearing her father's seal, to replace which she had issued her new coins, continued in circulation. Alfred Marshall has stated the law by stating that "an inferior currency, if not limited in quantity, will drive out the superior currency". However, as has been amply made explicit by Hawtrey in his above cited long passage an undervalued currency need not necessarily altogether disappear from circulation; it can instead remain in circulation commanding an agio over its officially fixed value.

Gresham's Law, which has been widely cited, has been most frequently misunderstood because it has been variously stated in various textbooks. Gresham's Law has been correctly enunciated by Steiner, Shapiro and Solomon in the following words:

> "Where two or more forms of money of the same nominal or face value are in concurrent circulation and if one is relatively overvalued for monetary purposes, the self-interest of the public........will lead them to discriminate between the two forms. The undervalued form will be retained, and the overvalued form will be passed along to others........In time the form of money which is undervalued for monetary purpose will disappear from circulation....if the community is in a position to refuse to accept the bad money the good money will not disappear but will continue to circulate *at a premium.*"[5]

The operation of Gresham's Law is by no means restricted to bimetallism alone. It applies to the metallic coin standards of older days. When public and

[4]The use of the terms *overvalued* and *undervalued* in the above context, is somewhat misleading. An overvalued currency is that whose purchasing power in the market is less than the one fixed by the government while the opposite is true for an undervalued currency. For example, during the Civil War, the federal government declared that a $10 greenback was equal in value to a $10 gold coin. At this rate the greenback was clearly an overvalued currency since it had lower purchasing power in the market than the gold coin and people could buy goods at lower prices if they paid in gold coin compared to those if they paid in greenbacks

[5]W.H. Steiner, Eli Shapiro, and Ezra Solomon. *Money and Banking*. fourth edition, 1958 pp 32 33

private impecuniosity, greed and simple dishonesty led to the lightening of the coinage through saving, smearing, etc., people retained the heavy coins with them passing the debased light coins from one hand to another leading to the disappearance of heavy coins in real world systems. From the above discussion it is evident that Gresham's Law will apply only

(i) if the two or more monies in current circulation are full legal tender and the public is not apathetic to any of the monies in circulation,

(ii) if the total money supply exceeds public's total monetary demand, and

(iii) if the total amount of the overvalued money in circulation is sufficient to meet the community's total demand for money.

Two important aspects about the operation of Gresham's Law deserve mention. First, the action of Gresham's Law depends upon a "substantial difference" in the types of monies in circulation and not merely upon a difference in incidental characteristics. For example, retaining new currency notes with them and spending of old notes by people does not illustrate operation of Gresham's Law. However, if there circulate simultaneously gold coins and paper money whose redeemability in gold is suspended by government, then Gresham's Law will operate since the difference between gold coins and paper money rendered inconvertible into gold is a "substantial difference" between the two types of monies in circulation. Second, if any of the undervalued money remains in circulation in the country, it will circulate only at a premium because people will not spend the undervalued money on the same basis as the overvalued money because they can make profit by getting more for the former in foreign countries. Expressed in a different language, if the two monies in circulation are gold coins and paper money and since gold coin is more readily acceptable than paper money in transactions, people will sell goods at lower prices if payment is made in gold coins than when it is made in paper money.

MONOMETALLIC STANDARD

As a second variant of the commodity standard, the monometallic standard has existed in the world in the forms of silver standard and gold standard. The gold standard has, however, a richer history and a glorious career having been practised in its various forms. Silver, as a monetary standard, had been in operation only in the form of silver-coin standard, while gold, as a monetary standard, had been in vogue in the forms of gold-coin, gold-bullion and gold-exchange standards. The gold standard has enjoyed a more prestigious position in comparison to silver standard partly because gold is scarce and consequently more valuable than silver and partly because the value of gold is more stable than that of silver Most world countries used silver for

monetary purpose up to 1873 along with gold in the form of bimetallic standard. By the end of the nineteenth century almost all the countries had adopted one or the other variant of the gold standard. Egnland was already on the gold standard from as early as 1816. In the present century, with the single exception of China where the silver standard existed up to 1935, none of the world countries has silver standard. India gave up the silver standard in 1893 on the recommendations of the Herschell Committee. During the period 1885-1893 when the silver standard existed in India, the monetary unit was the silver rupee consisting of 180 grains of silver of 11/12 purity.

PAPER STANDARD

The pre-World War I period was characterised by the general absence of inconvertible paper money, as the monetary systems of the major world countries were on the gold standard. Barring the unusual critical years of the Civil War in America and the French Revolution in France, when inconvertible Assignates and Greenbacks were printed to finance the mounting deficits occasioned by the exigencies of Civil War and Revolution, inconvertible paper money was not the general trend before 1914. During the war period of 1914-1918, almost all the gold standard countries abandoned the gold standard and took to the inconvertible paper standard. Paper standard lacks the automaticity of the gold standard and requires diligent management for achieving given economic goals. Keynes was a great supporter of the managed money standard as it preserved the national sovereignty of a country in economic affairs enabling her to make appropriate changes in the money supply to suit her national needs without having to depend upon the vagaries of gold reserves. For example, it is possible for a country to increase money supply to finance economic development without having to find the scarce gold reserves that were essential under the gold standard. In other words, paper standard imparts elasticity to the monetary system of the country.

Paper money standards have been associated with historical impecuniosity of governments. Non-representative paper standards are fiat in character and relieve governments from the formal rigours of convertibility requirements. Paper money standards have proved a great boon for the impecunious governments as these have allowed the governments fiscal freedom and have frequently led to the horrors of hyperinflation.

SYMMETALLIC STANDARD

Although a symmetallic standard has never been in actual operation, the theoretical literature available on symmetallism enriches our understanding of economic theory, particularly about the relationship between money,

prices, and national income. The idea of having a symmetallic standard was mooted by eminent economic theorists, including Alfred Marshall, in order to overcome the defect of bimetallism which mostly operated as a monometallic standard as a result of the operation of Gresham's Law. Alfred Marshall had suggested the adoption of a symmetallic standard under which the monetary unit would comprise of a coin of gold and silver amalgamated in certain given proportion. Elucidating his scheme of a symmetallic standard Marshall wrote: "I submit that if we are to have a great disturbance of our currency for the sake of bimetallism, we ought to be sure that we get it........My alternative scheme is got from his (Ricardo's) simply by wedding a bar of silver of, say, 2,000 grammes to a bar of gold of, say, 100 grammes; the government undertaking to be always ready to buy or sell a wedded paid for a fixed amount of currency........This plan could be started by any nation without waiting for the concurrence of others."[6]

In recent years, the idea of symmetallism has been supported by Professor Milton Friedman. Friedman has sought to extend the idea of symmetallism to include every commodity and service in the monetary unit in the same proportion in which it figures in the national product. Elucidating the idea Friedman has stated: "Impressed with the deficiencies of gold or silver separately, a number of economists, including Marshall, proposed towards the end of the nineteenth century that the two be wedded together in what was called symmetallism. Under this proposal the currency unit would have been a specified weight of silver plus a specified weight of gold; one can, if he wished, think of a physical combination of the two in a single bar. The price of silver relative to that of gold could vary to any extent at all.......In principle, the ultimate extension of the idea of symmetallism is to include in the standard every commodity and service produced in the economy roughly in proportion to the amounts produced (presumably) as measured by the 'value added' in their production."[7]

Milton Friedman has amply discussed the practical difficulties that would be experienced in the 'ultimate extension' of symmetallism in the form suggested by him. Difficulties are bound to arise due to the perishable nature of many commodities included in the monetary unit and changes in the product mix over time. Moreover, the difficulties of specification and standardisation, etc. would always inhere in the extended type of symmetallism proposed by Friedman. Consequently, symmetallism has only remained 'a sweet dream' of economic theorists.

[6]Alfred Marshall, "Remedies for Fluctuations of General Prices," 1887, reprinted in A.C. Pigou (ed.), *Memorials of Afred Marshall*, pp. 188-211.

[7]Milton Friedman, *Essays in Positive Economics*, 1953, p. 213.

SUGGESTED READINGS

M.L. Burstein, *Money*, 1963, Chapter 2.
R.P. Kent, *Money and Banking*, Fourth Edition, 1961, Chapter 4.

QUESTIONS

1. Explain the main features of a bimetallic standard. How does Gresham's Law operate under bimetallism? Explain.
2. What is monometallism? Explain its different variants.
3. What is meant by bimetallism? Discuss the merits of bimetallism.
4. Write a lucid note on Gresham's law
5 What is a monetary standard? In what forms has monometallic standard operated in the world?
6. What is symmetallism? How will its introduction remove the shortcomings of bimetallism?

12 GOLD STANDARD

INTRODUCTION

Although no longer in existence as the monetary standard of countries in the world, for a well informed student of monetary economics the study of the gold standard is important for a variety of reasons. Firstly, as an essential part of the monetary systems of world countries no other monetary standard has remained in vogue over such a large part of the world for such a long unbroken period of time as the gold standard. Secondly, it was an essential part of the nineteenth century economic liberalism and free trade policy. It played a dominant role in the classical economics which was based on the philosophy of *laisez-faire laissez-passer*. Thirdly, it offered practical scope to the concept of international money. Moreover, the study of the gold standard deserves special attention due to its being almost universally adopted as a monetary system for a period of more than one century ever since England adopted it in 1816. In the decades immediately preceding the outbreak of World War I, the currencies of world's leading countries, as well as those of many others, were tied, directly or indirectly, to gold within the framework of the international gold standard. During the period beginning from around 1880 to 1914, the foreign exchange rates in the various gold standard countries were marked by stability moving within the narrow limits set by their respective gold points without the support of exchange restrictions, import quotas or related controls, which were virtually absent even in the case of currencies that were on paper or silver standards. During this period, barring a trifling number of countries, devaluations of gold currencies were highly exceptional. It was indeed amazing that all this was achieved in spite of the volume of international reserves that, in the case of many countries, was amazingly small and in spite of only a minimum of international cooperation or international agreements or commitments on monetary matters. This remarkable performance which was essentially a product of an unusually favourable combination of historical circumstances, appears all the more striking in contrast to the great turbulence of post-1914 international financial experience. Consequently, even today the students of monetary affairs are both fascinated and puzzled by it.

Definition

Different definitions have been given of the gold standard by different economists. In whatever words one defines it, the gold standard refers to the monetary system in which gold acts as the *standard of value* in the sense that the country's monetary unit is either made of gold of specified weight and purity or its value is quite unambiguously defined in terms of certain specified weight of gold of specified purity. According to Crowther, the gold standard is "a device for maintaining the stability of exchange rates."[1] According to Robertson, "gold standard is a state of affairs in which a country keeps the value of its monetary unit and the value of a defined weight of gold at an equality with one another."[2] Kemmerer has defined gold standard as "a monetary system in which the unit of value in which prices and wages are customarily expressed, and in which debts are usually contracted, consists of the value of a fixed quantity of gold in an essentially free gold market."[3] Whatever be the variant of the gold standard which a country adopts—the three most known and practised variants of the gold standard were the gold coin, gold bullion,[4] and the gold exchange standard—the monetary unit of the country is redeemable (where it is not made of gold) either directly or indirectly (as under gold exchange standard through some foreign currency which itself is made either of gold or is directly redeemable into gold) into certain specified quantity of gold of certain specified purity. It follows from this that under any variant of gold standard the accounting price of gold is guaranteed and convertibility of non-gold assets into gold at a fixed rate is provided for.

The basic technical objective of adopting the gold standard, whatever may be the variant adopted, is to make the purchasing power of country's monetary unit equal to the value of the stated quantity of gold. Every monetary unit in its physical form-whether in the form of gold coin, silver coin, or paper note must possess this equality of value with the designated unit of gold. To achieve this technical objective, the monetary laws and regulations must

[1]Geoffrey Crowther, *An Outline of Money*, revised edition, 1958 reprint, p. 277.

[2]D.H. Robertson, *Money*, 1949, p. 64.

[3]E.W. Kemmerer, *The Gold Standard—Its Nature and Future*, p. 5.

[4]Chandler has distinguished between what he terms as the *full* gold bullion standard and the *limited* gold bullion standard. Under a *full* or *unlimited* gold bullion standard, the monetary authority sells gold in unlimited amount to any person for any purpose whereas under its limited variant it sells gold for only limited purposes. The USA was on a *limited* gold bullion standard because US citizens were forbidden to hoard gold, gold being supplied for only legitimate industrial, professional, and artistic uses. The US dollar was convertible only externally and it was incovertible into gold domestically. Consequently, under a limited gold bullion standard the free market price may differ from the official price of gold.

conform to certain requisites of the gold standard and it is the duty of the government to make the necessary legislation and establish the requisite framework for this purpose. The requisites for different variants of the gold standard differ and may be briefly mentioned as below.

KINDS OF GOLD STANDARD

Under the gold *coin standard*, which was in vogue in the world in the pre-1914 period, all types of money are redeemable at par in full-bodied gold coins. There is free market in gold and there is free coinage of gold. Since gold coins are in circulation, the public is free to exchange other monies for these coins. Country's monetary unit is defined in terms of the specific quantity of gold of specified purity. For example, before 1914, when England was on the gold coin standard, sovereign was declared equivalent to 123.2744 grains[5] of gold of 11/12th purity, *i.e.*, worth 113.0015 grains of fine gold. Since such money unit is separately redeemable at par into gold coins the gold coin standard will work successfully only if the quantity of other money in circulation is small relatively to the supply of gold and if the amount of credit money does not exceed the quantity of available gold. This system is costly to operate. Consequently it was given up after the First World War with the gold standard countries opting for the cheaper gold bullion standard. Furthermore, since there is no restriction on the free international movements of gold the balance of payments surplus and deficit is corrected through the gold inflows and outflows.

The *gold bullion standard* which was largely adopted in the post-war period differs from the gold coin standard in two important respects. First, there are no gold coins in actual circulation. Second, while the monetary authority is still under legal obligation to sell gold to the public at official price, it sells gold in the form of bars with the result that for the common man not possessing enough money to purchase the minimum quantity of gold in the form of gold bar the convertibility of each money unit into gold is virtually denied although theortically speaking the money unit of the country is still convertible into gold. The gold bullion standard was denounced by the French people as the "rich man's standard" since the poor could never aspire to convert their small money holdings into gold which could be had only in the form of gold bars with the price of each bar being officially fixed and the minimum quantity of gold to be purchased being fixed at one gold bar. For example, under the Gold Standard Act of 1925 the smallest quantity that could be bought from the Bank of England under the provisions of Britain's

[5]The smallest British weight (the average weight of a seed of corn)—1/7,000 of a pound avoirdupois.

gold bullion standard of the 1920s was a gold bar of the weight of 400 ounces of fine gold whose price was fixed at 1,700 pound sterlings (US $7,585). Similarly, under the provisions of the gold standard Act of 1928, the Bank of France could sell gold only in the form of gold bars each priced at US $8,428. These indirect restrictions on the free sale of gold were meant to make gold available only to the bankers and bullion merchants and for foreign payment purposes.

The chief factors favouring the adoption of the gold bullion standard in the post-war period were (*a*) to economise in the use of scarce gold by withdrawing gold coins from circulation and replacing these by paper notes that were redeemable at par into gold when presented in the form of a minimum bunch equivalent to the price of a gold bar, (*b*) to limit the gold convertibility of other monies, and (*c*) to concentrate the entire official gold reserves in the hands of the monetary authority. Describing the smooth process of transition from the pre-war gold coin standard to the post-war gold bullion standard Keynes has written:

> "thus, almost throughout the world, gold has been withdrawn from circulation. It no longer passes from hand to hand, and the touch of metal has been taken away from men's greedy palms. The little household gods, who dwelt in purses and stockings and tin boxes, have been swallowed by a single golden image in each country, which lives underground and is not seen. Gold is out of sight—gone back again into the soil. But when gods are no longer seen in a yellow panoply walking the earth, we begin to rationalise them; and it is not long before there is nothing left."[6]

A still cheaper variant of the gold standard that became popular in the post-war period and which was almost universally adopted by those countries that lacked in adequate gold reserves to guarantee the redeemability of their monetary units into gold directly was the *gold exchange standard*. Under a gold exchange standard, the monetary unit of the country is not directly redeemable in any form into gold, it is instead redeemable into the monetary unit, at certain officially fixed rate, of some foreign country which is either on the gold coin or on the gold bullion standard, *i.e.*, which maintains the redeemability of its money unit into gold at a fixed rate. The monetary reserves of the gold exchange standard country are usually held in the form of interest-bearing government securities of the foreign country with whose currency the country links its own currency unit. Furthermore, the indirect redeemability of a gold exchange standard country's money unit into gold is for international and not for domestic use. Historically, gold exchange standard had existed in those countries which were closely related as a consequence of consanguinity, colonial relationship, etc. For example, Philip

[6]J.M. Keynes, *A Treatise on Money*, Volume II, 1930, p. 291.

Islands and India were on the gold exchange standard with the former linking its money unit silver peso with the US dollar and the latter linking her currency unit rupee with the pound sterling. India adopted the gold exchange standard in 1900 by maintaining the stability of the rupee-sterling exchange rate by buying and selling sterling securities and selling and buying rupee securities, whenever the exchange rate violated the specified upper and lower limits. In India, the rupee-sterling exchange rate stability was sought to be maintained through the device of selling Council Bills (rupee drafts payable in India) in London and Reverse Council Bills (sterling drafts payable in London) in India. In recent years, modified gold exchange standards under which governments hold their monetary reserves in the form of dollar assets (the US dollar acting as the reserve currency) have become more prominent. It is easy to see that this sort of 'pyramiding' can cause severe aggravation of world liquidity crisis like the one witnessed in the early seventies culminating in the suspension of dollar convertibility and eventually devaluation of the dollar which at one time was considered mighty and impregnable.

In Philippines, an act was passed in 1903 which provided for a theoretical gold peso (2 gold pesos were equal to one US dollar) and for the estalishment of a Gold Standard Fund to be exclusively utilised to maintain the value of local currency (silver peso and certificates) at this gold parity. A part of the Fund was kept in dollars in New York and a part in local currency in Manila. The Philippine government sold dollar drafts in Manila drawn on Fund's dollar balances kept in New York at fixed rate in terms of the pesos. Conversely, the government depositories in New York sold peso drafts payable in Manila at fixed price in terms of US dollars. There was a small spread between the two selling rates that corresponded to the theoretical gold points. If the peso fell to the gold export point, pesos would be paid into the Fund kept in Manila and dollars paid out of the Fund kept in New York. The converse trend would exist if the peso rose to the gold import point.

While the gold exchange standard ensures practically all the advantages of a costly gold coin or gold bullion standard for a country, its operation is nevertheless difficult because a number of monetary reserves must be properly managed. Moreover, it lacks the automaticity of the gold coin standard. It is also essential to maintain a close relationship with the parent gold coin or gold bullion standard country, with whose money unit the money unit of the gold exchange country is linked.

After the breakdown of the gold standard in the 'thirties'. England, USA, and France evolved a working arrangement to ensure exchange rate stability between their currencies through the technique to Exchange Stabilisation Fund or Exchange Equalisation Account. The arrangement evolved out as a result of the setting up of the exchange stabilisation funds by England, USA and France is known as the *gold reserve standard* which remained in

operation until the outbreak of the Second World War in September 1939. England had given up the gold standard in September 1931. To maintain the exchange rate stability she set up an Exchange Stabilisation Fund. The Fund aimed at removing the unwarranted variations in the exchange rate occasioned by the destabilsing speculative capital movements and seasonal changes in foreign exchange rate. A similar fund was established by the American government in 1934, followed by a similar move by France in 1936. In September 1936, the three countries entered into an agreement which is known as the *Tripartite Agreement* envisaging to undertake to use appropriate available resources to prevent as far as possible exchange rate fluctuations of their respective currencies. England, USA and France were subsequenly joined in this arrangement by Belgium, Switzerland and the Netherlands. The Tripartite Agreement was significant as it marked an important step forward from monetary nationalism to international monetary cooperation in the absence of international gold standard. The gold reserve standard lasted for a period of about three years beginning form September 1936 to September 1939.

Merits and Demerits of Gold Standard

As an international monetary standard, the gold standard had commanded respect and enjoyed the rare privilege of almost universal adoption in one or the other form throughout the world for more than three decades. Consequently, there is copious literature available on the theory and working of the gold standard. The supporters of the gold standard have given several arguments in favour of the gold standard.

1. It has been said that gold standard gives practical meaning and content to the concept of international money by providing an international medium of exchange and standard of value. The monetary units of different countries are related to one another simply on the basis of their metallic weights of uniform purity without any distinction being made of the countries to which the money units may belong.

2. Under gold standard the rate of foreign exchange-value of the currency unit of one country determined in terms of the currency units of others-is easily determined on the basis of the metallic contents of the respective money units. Since the basis of exchange rate determination is the weight of the specie, as expressed in terms of given purity contained in the currency units, the rate of exchange so determined cannot change as long as the gold value of the currency units remains unchanged. For example, when the British pound-sterling was worth 113 grains of pure gold and the US dollar was worth 23.22 grains of pure gold, the pound-dollar exchange rate was stable at 1£ =113.2322÷23.22=4.665 US dollars. Of course, the market rate of exchange, determined on the basis of demand for and supply of foreign exchange, could

deviate and, in fact, did deviate from the normal equilibrium rate of exchange determined on the basis of parity between the mint weights of the concerned currencies. Such deviation was, however, contained within the narrow limits prescribed by the gold import and gold export points. Since gold commands high value in small bulk, the cost of exporting or importing (shipping charges) gold was very small and the two gold points-gold export and import points-were set very close to each other. Consequently, fluctuations in the rate of exchange, if at all they took place, were confined within a very narrow margin ensuring stability of exchange rate for all practical purposes. This exchange rate stability was claimed as one of the most important advantages of the gold standard in as much as it promoted smooth internationl trade and capital flows that were considered essential for international economic growth and prosperity. An important objective of the monetary policies pursued before 1914 by the gold standard countries was the maintenance of exchange rate stability.

3. When different countries are on the gold standard, prices of important goods and services—internationally-traded goods and services—are equated, allowance being given for the cost of transportation. If prices are relatively high in one country and low in others, this price differential will be eventually removed through the price-specie-flow mechanism which will operate under the gold standard.

4. Since under a full-fledged gold coin standard the total currency in circulation is made of gold or 100 per cent gold reserves are kept against the issue of paper currency, the supply of money cannot be increased by the arbitrary fiat of the government. Even under the gold bullion standard where only a certain fraction of the total value of the currency issued is required to be kept in the form of gold reserves, the supply of money cannot be increased without increasing proportionately the gold reserves so that the relationship between the total gold reserves and the total currency remains stable. Thus, the golden rules[7] of the gold standard require a gold standard country's government not to increase the money supply which is not justified by the increase in governments monetary gold reserves. In short, gold standard provides a built-in safeguard against the overissue of currency by impecunious governments resulting in the uncomfortable situation of hyperinflation. Almost all hyperinflations in the past have emanated as a consequence of an act of overissue of paper money on the part of impecunious governments seeking to finance their spending through resort to the printing press easily made possible under the fiat money standard.

[7] Thus the golden rule of the gold standard requires a gold standard country's government to expand currency and credit money when gold comes in and to contract it when gold goes out of the country.

Despite the aforesaid advantages claimed in favour of the gold standard, it entails certain serious hardships which become its disadvantages for the countries practising the gold standard. In the first place, the rules of the gold standard game are too rigid to be followed by all countries at all times. Since under gold standard it is not possible to increase the money supply without increasing the monetary gold reserves, the monetary system of the country becomes inelastic so that in times of national emergency like war or during the exigencies created by planned economic development of the country it is not possible for government to finance war or development through deficit financing. Consequently, gold standard is a peace time standard and has to be abandoned in war when it is not possible for a country to follow the rules of the gold standard game. It is for this reason that some economists have dubbed the gold standard as a 'fair weather friend' who always deserts in times of difficulty.

Secondly, gold standard does not permit scope for monetary management consistent with national interests. It has been characterised as a *laissez faire* standard. The supply of money may expand or contract depending upon the increase or decrease in the supply of gold. It is not always necessary that the supply of gold will increase or decrease when it must in the interests of national economic prosperity. The economy of the gold standard country becomes pegged to the whims of ebbs and flows of the 'yellow' metal.

Thirdly, the much-publicised exchange rate stability under the gold standard is achieved at the heavy cost of causing unwanted fluctuations in the domestic price level which cause serious disorders in the country's economy.

Fourthly, gold standard has an inherent bias towards deflation. There is ample evidence to support this statement. When countries returned to the gold standard after 1919, there was massive outflow of gold from England and other debtor countries of Europe towards USA. While the economies of the countries losing gold suffered from severe deflation, those gaining gold did not experience inflation in any substantial degree.

Fifthly, the classical process of automatic equilibrium restoration in the balance of payments of the gold standard countries through the price-specie-flow mechanism is based on the assumption that both the concerned countries are economically of equal size so that the impact of adjustment is evenly shared by both the countries. In other words, the assumption that the burden of adjustment falls evenly on both the countries is open to serious objection and is contradicted by facts. In the *thirties*, it was found that the burden of correcting the deficit in the external balance of payments was borne almost entirely by the deficit countries in the form of severe deflation and unemployment with little or no burden being borne by the surplus nations in the form of inflation. Consequently, the deficit gold standard countries, faced with the phenomenon of virtually unending gold outflows and consequent

deflationary pressure on the domestic economy, lost faith in the so-called virtue of the automatic working of the gold standard and abandoned it in favour of the inconvertible paper money standard.

Sixthly, gold standard is a *laissez-faire* standard. Although the supporters of the gold standard have regarded this as a virtue of the standard but, in fact, this has worked against the interests of the poor nations vis-a-vis the rich nations. A logical outcome of *laissez-faire* philosophy in policy matters has been reflected in the support for free trade. In a way, the maintenance of exchange rate stability as the goal of monetary policy pursued under the gold standard got support from the argument that such stability was essential for the smooth flow of international trade and for orderly working of world's money and foreign exchange markets. In fact, the pattern of the nineteenth-century international trade that developed under the gold standard has been one of the factors responsible for exploitation of the poor countries by the rich shaking the faith of the former in the much-publicised classical advantages of free trade. The poor countries which became poorer as a result of free trade that failed to protect their legitimate economic interests quite understandably favour protection in order to develop their domestic economies. The "Third World' would never cast its ballot for the nineteenth-century gold standard and free trade that tended to perpetuate the colonial regimes. In the present world, gold standard is an anachronism. It is only just and proper that the last traces of gold from the official monetary realm have disappeared by delinking the par values of members' currency units in the IMF under the new scheme of the evolutionary reform of the international monetary system.

Gold Standard in Operation

The actual working of the gold standard can be studied by studying the working of the gold standard before the outbreak of the first global war in 1914, *i.e.*, the prewar gold standard and the working of the gold standard as it emerged as result of the restoration after the War, *i.e.*, the postwar gold standard. Nothwithstanding that England—the home of *laissez-faire* policy—had adopted the gold standard as early as 1816, it was not until the 'eighties' of the nineteenth century that the European countries adopted it. It was during the period of about 35 years extending from about 1880 to 1914 that the currencies of the leading countries of the world, as well as of many others, were pegged directly or indirectly to gold within the framework of the international gold standard.[8] It was an era of gold triumph.

[8]It is not suggested that the adoption of the gold standard had been universalised. In fact, a substantial number of countries never entered the gold standard club, but remained throughout the period on a fluctuating paper standard (especially Spain and various Latin American countries) or silver standard (for example, China, El Salvador and Honduras).

Prewar gold standard: In a world marked by political stability and peace, the pre-war gold standard worked remarkably well and the maintenance of exchange rate stability required so little of conscious effort that it came to be regarded as natural. Notwithstanding differences in the economic structures of various nations, the device of the international gold standard kept all these divergent economies within a monetary system and a price system which were so nearly homogeneous that these could very well be regarded as truly international. The money unit of each country was merely a specie of international gold money and the economy of each gold standard country was regarded as a sector of a truely interdependent world. The prewar international gold standard worked in a relatively simple world from a single centre of international finance that was located in London. It is generally believed that the various gold standard countries played the "rules of the game" so faithfully that the system worked well automatically without discretionary action by the monetary authorities, except in the case of the Bank of England which skillfully managed the gold standard system as a whole. The functioning of the prewar gold standard was so perfectly smooth that it baffled many economists.

In recent years, a number of studies throwing valuable light on the theoretical aspects and empirical working of the pre-1914 gold standard system have been made. According to some of these studies, contrary to the popular belief, the structure of the prewar gold standard was far from being simple and uniform. Its actual form, both in law and practice, differed from country to country and changed over time in the case of individual countries. Without detailing the many forms (legal and de facto) of gold standard systems or the classification of the exact status of each individual gold standard country, one might broadly distinguish countries such as England, Germany, and perhaps USA that were on a "full" gold standard; countries such as France, Belgium and Switzerland that were on a so-called "limiping" gold standard in as much as notes were legally convertible into gold or full legal tender silver coins at the option of the authorities; and countries such as Russia, Japan, South Africa, Australia, New Zealand, Canada, the Netherlands, India, the Philippines, Ceylon, Siam, the Straits Settlements and most of the Scandinavian countries which were on a wide variety of forms of the "gold exchange standard." Even this classification is far too simple since there was much overlapping in individual cases

Internally also, there were considerable differences between different countries in the composition of the supply of currency as between gold coin, silver coin, bank notes, and in some cases treasury notes. While in England, France, Germany, USA, Russia (after 1897), and in several of the smaller countries such as Australia, Egypt and South Africa gold coins accounted for bulk of the currency in circulation in the other gold standard countries gold

circulation was relatively small and restricted either because the public preferred other forms of currency media to gold coins, *e.g.*, in Austria-Hungary and the Scandinavian countries or because the authorities did not freely redeem notes into gold for purposes of internal circulation, *e.g.*, in Belgium, Switzerland, and the Netherlands.

While some of these countries formally adopted gold exchange standard arrangements, others like India, drifted into them. While the legal and institutional arrangements differed from country to country, the *modus operandi* was essentially the same in all these cases. Briefly, the government or its authorised agency maintained the local currency (silver coin and paper notes) on a par with gold by standing ready to sell and buy foreign exchange at fixed maximum and minimum rates in terms of local currency. For this purpose, the authorities kept a stock of foreign exchange (*e.g.*, pound-sterling in the case of India) and also in some cases gold at home and abroad. For these countries gold exchange standard provided the cheapest and most convenient method of keeping their currencies on a par with gold without being forced to redeem their currencies freely into gold.

Moreover, the composition of the gold standard 'club' kept on changing over the course of the period. Not only the geographical coverage of 'club' expanded but even the countries which entered the membership of the club differed widely in the extent of their size end development. As already mentioned, by the turn of the century nearly all the leading countries had tied their currencies in one or the other form with gold. Many smaller countries of Asia and Latin America had done so in the late 1890s or early 1900s in the form of some variety of the gold exchange standard. Some countries such as Argentina, Portugal, Italy, Chile, Bulgaria, and Mexico left the membership of the 'club' in 1885, 1890, 1891, 1898, 1899, and 1910 respectively. However, Argentina, Italy, and Bulgaria latter returned to the gold standard in 1900, 1902, and 1906 respectively. Moreover, a number of countries never joined the club remaining either on the fluctuating paper standard or on silver standard throughout the period. To add to this complex picture, there existed various regional monetary groupings, including the Latin Monetary Union formed between France, Belgium, Switzerland, Italy, and Greece; the Scandinavain Monetary Union with membership of Sweden, Norway, and Denmark; and the much less clearly defined and more informal 'sterling area.'

War period: The outbreak of War in August 1914 forced countries to incur huge expenditure on the purchase of armaments and defence equipments. Despite increases in taxes and loan campaigns, large deficits could not be avoided making it increasingly difficult for the gold standard countries to fulfil their gold standard obligations. In short, the exigencies of War forced countries to abandon the gold standard. Within a few days of

declaring the war, belligerent countries in Europe and in other continents, followed in due course of time by the neutrals, suspended the convertibility of their currencies into gold. In England notwithstanding that the Bank of England was still under obligation to buy and sell gold at fixed price, such obligation was in effect rendered meaningless in face of the prohibition on gold coins' melting and gold exports because there was no purpose in converting notes into gold. Gold coins were withdrawn from circulation in every European belligerent country and paper notes were issued in exchange of gold coins in circulation. The gold thus withdrawn was partly used to pay for essential war materials' imports made from neutral countries. The colossal spending on war had to be financed by outright inflation by resorting to the printing press. The USA was the only major country that remained on the gold standard in the initial period of war but she too abandoned the gold standard by placing embargo on the export of gold from 7 September 1917 on her entry into war.

Postwar period and restoration: Although all gold standard countries of the world had gone 'off the gold standard' during the war years, the international gold standard was restored in nearly every country after the war. The quick restoration of the gold standard in the postwar period was motivated by: (*a*) the desire on the part of the countries to return 'back to pre-war' normal gold standard days, and (*b*) the grave chaos produced in Continental Europe by the post-war run-away inflation which led to astronomical rise in prices in Germany and in other countries resulting in great economic hardships and political instability. It was felt that normalcy in currency arrangements meant the gold standard. Moreover, the misery and dislocation caused by the post-war hyperinflation produced as a consequence of the spate of paper currency issue convinced all those who had a taste of it about the urgent need to bring it under quick control. It was realised that gold standard, its faults notwithstanding, did never permit such an inflation to develop. This assurance regarding the comparative stability under the gold standard created a unanimity of desire among the countries to return to the gold standard which developed into a mighty movement of gold restoration accomplished within almost a decade of the Armistice.

The postwar world was, however, substantially different from its prewar counterpart. Many significant changes had taken place on economic and financial fronts. The first legacy of war was the postwar hyperinflation which was experienced differently by different countries, the worst victim being the German economy where prices rose to one million times their pre-war level. The different magnitudes of inflation in different countries caused substantial distortions in the relative cost-price structures of the gold standard countries, particularly the three leading gold standard nations—the United States, the UK and France This in effect meant that the successful restoration of the gold standard in the post-war period was possible only at the new exchange rate

parities which required careful calculation on the basis of price rise in different countries. In the new situation, the old exchange rates between the gold standard countries' currencies were no longer valid and had, in a way, become 'hit and miss' parities that needed to be avoided at all costs in the interest of salvaging the postwar international gold standard from an untimely and avoidable collapse.

War had also left its scar in the form of change in the international financial leadership from England in favour of the United States of America. From a minor financial centre in the pre-war period, the United States emerged in the post-war period as a major regulator of world's monetary system. On the eve of war in 1914 she was a net debtor to the rest of the world, had few facilities for international lending, and had been inadequately equipped with knowledge about the international monetary and financial matters. England was the world's greatest trading country and the world's largest net creditor. London enjoyed the coveted position of international lending and international settlement of currency account transactions. In effect, in the pre-war world the Bank of England managed the international gold standard and it is no exaggeration to say that it was the gold that was on the sterling standard rather than being the other way round.

All this picture materially changed after the war. The United States having kept herself away from direct involvement in war for most of the time emerged more powerful than ever before From a position of net debtor before war she had become a net creditor to the world. Her industries had remained unscathed by the war and her GNP was probably greater than that of all Europe. She had amasssed more than 40 per cent of world's total monetary gold with prospects of acquiring still more. Almost alone, she had remained on a gold standard. After the war England had been reduced to the position of second rate power while Europe, once the hub of world economic and financial power, was in economic distress with her productive capacity badly shattered. Germany, which before war was 'the industrial workshop of Europe,' was virtually reduced to a barrern patch of land with her industrial capacity badly shattered. Worst still was the fact that many governments were weak and unstable. Revolutionary movements were rampant and international disputes were a common sight. Inflation was rampant while financial disorders had become the rule. Bulk of world's monetary gold was concentrated in the official reserves of central banks while a great part of world's total monetary gold reserves had been redistributed in favour of the United States. London no longer played the role of manager of the international gold standard. It was in this substantially, politically and economically changed post-war world that the international gold standard was restored after the war.

The process of postwar restoration of the international gold standard started in earnest with the German stabilisation in 1924 and the return to gold of the pound-sterling in 1925 and was virtually complete in 1928 when legal

form was given o the stabilisation of French franc. By 1929 the only countries that remained outside the gold standard net were China, Spain and Mexico.[9] In a way, the postwar gold standard was richer compared with its prewar predecessor both in the matter of geographical coverage extending to many more countries which in the pre-war days had not belonged to the charmed gold standard club and in form having been adopted in the gold bullion and mostly in the gold exchange standard forms.

The postwar gold standard also differed from the pre-war standard in as much as it was more highly managed than the old one. After enjoying years of freedom from the 'gold standard discipline,' central banks in the post-war period were reluctant to follow the old rules of the gold standard game by contracting money supply when they lost gold and by expanding the money supply when they gained gold. 'Offsetting' and 'sterilising' activities were frequently indulged in by central banks inhibiting the process of equilibrating international receipts and payments. This amounted to interfering with the 'automatic' working of the standard and hampering the working of gold movements in bringing about equilibrium adjustment in international balance of payments of the surplus and deficit countries. For example, France refused to allow her money supply to increase in response to massive gold inflows in that country. Similarly, the US Federal Reserve System, fearing grave inflation in the economy, followed a policy of 'offseting' or 'sterilising', the effects of massive gold inflows except when, by coincidence, the effects of gold inflows were consistent with the promotion of the system's objectives. This failure to observe the rules of the gold standard game on the part of creditor countries should have served as a warning to these countries that by doing so they only accelerated the collapse of the post-war gold standard nearer in time.

The postwar gold standard was also characterised by disequilibrium relationship between the various national price levels as expressed in terms of gold. In the pre-war period, these national price levels were in near-equilibrium situation. Since during and immediately after the war different gold standard countries had been in the grip of different magnitudes of inflation, the old prewar equilibrium was no longer relevant datum for determining the exchange rate relationships in the context of post-war restoration of the international gold standard. Returning to the gold standard at the old exchange parities amounted to undervaluation or overvaluation of the currency units, far removed from the equilibrium rates of exchange, for the very simple reason that prices had not risen uniformly in all the countries during and immediately after the war. While many neutral countries (Switzerland, Holland and the Scandinavian countries), being almost in the

[9]The USSR currency system is not amenable to any easy classification.

same position as the United States of America regarding price levels, returned to the gold standard at the old parities without causing disequilibrium, this did not apply to most of the belligerents where prices had risen substantially more than in the United States. For example, when England returned to the gold standard in April 1925 at the prewar parity of $4.866 = £1,it involved overvaluation of the pound-sterling by ten per cent or even more, that is to say, the equilibrium rate of exchange between the pound and the dollar was about $ 4.38 =£1 or even less and not $4.866=£1. England's action of restoring convertibility at the prewar dollar-sterling parity amounted to 'cold-blooded income deflation' which in the face of wage-price rigidity was bound to result in the collapse of the gold standard. Keynes, who opposed Churchill's[10] policy of England's returning to the gold standard at old parity, wrote in 1925 a pamphlet entitled *The Economic Consequences of Mr. Churchill* [11] wherein he attacked the government policy as a policy of self-imposed deflation and unemployment. The action of restoring the gold standard at the prewar high parity was taken in the fond hope that the Government would succeed in bringing down costs and prices by the required 10 per cent in the economy. In the event, the government completely failed to do so because it was found impossible to reduce wages in the face of stiff opposition to any such move from strongly organised British labour. Contraction of credit and increase in interest rates resulted only in creating the difficult socio-economic problem of unemployment and profit deflation without bringing down wages with the consequence that the pound remained overvalued throughout the whole period until the abandonment of the gold standard by England took place in 1931. The most to suffer from the overvaluation of the pound were the British export industries which were browbeaten in the competitive world export markets by the domestic high costs of production which were reflected in still higher selling prices of British export goods in international markets on account of the overvalued pound-sterling. The serious disadvantages of having an overvalued currency became well known to England as years rolled by. To avoid deterioration in country's external balance of payments on current account, the prices of British export goods had to be reduced by at least 10 per cent. Stressing this point Keynes wrote:

> "The policy of improving the foreign exchange value of sterling up to its pre-war value in gold from being about 10 per cent below it means that, whenever we sell anything abroad, either the foreign buyer has to pay 10 per cent more in his money or we have to accept 10 per cent less in our money. This is to say, we have to reduce our sterling prices for coal or iron

[10] Winston Churchill was the Chancellor of the Exchequer in the Government headed by Stanley Baldwin as the Prime Minister.

[11] The American edition was entitled *The Economic Consequences of Sterling Parity.*

or shipping freights or whatever it might be, by 10 per cent in order to be on competitive level, unless prices rise elsewhere. Thus, the policy of improving the exchange by 10 per cent involves a reduction of 10 per cent in the sterling receipts of our export industries."[12]

In order to accommodate the overvalued pound-sterling, it was necessary to effect either at least a 10 per cent cut in wages or to increase productivity by 10 per cent in order to keep the prices of British exports competitive abroad. In the post-war British economy neither of these two measures were possible to carry through. The strongly unionised British labour was in no mood to accept any move for wage-cut while improvement in productivity was a far cry. One of the consequences of the Churchillian unwise policy of restoring the gold standard at the old parity was the general labour strike in 1926.

As a second example of restoring the gold standard at irrational and wide off the equilibrium exchange parity we may cite the case of France which returned to the gold standard at the new parity (124 frs= £1) which was about one-fifth of the old parity of 24 frs=£1. At this low exchange rate, the French franc was undervalued making France a cheap country in which to buy goods and an unattractive one in which to sell with the consequence that her foreign exchange receipts exceeded her international payments on current account. The refusal of France to allow her gains of gold reserves to raise her domestic price level led to the perpetuation of this excess of receipts or surplus in her international balance of payments. It is obvious that the post-war world of restoration of the gold standard by the leading gold standard countries at irrational 'hit and miss' parities and where countries were reluctant to follow the rules of the gold standard game was most uncongenial for the healthy growth and smooth working of the international gold standard. In the suffocating atmosphere in which it was adopted, the postwar gold standard was bound to wither away, rather too soon.

Breakdown: Within a period of little over a decade beginning from its postwar reincarnation, the gold standard had once again been abandoned by the great majority of the countries. Unlike the abandonment on the earlier occasion under the impact of war exigencies, this time it was the unpropitious peace time when the gold standard had collapsed never to be restored again in the living memory. The postwar gold standard was like an ill-fated child that was conceived and born under the evil influence of ominous stars. The beginning of the 'great collapse' occured in 1929 when some countries abandoned the gold standard. It came to a head in May 1931 when the largest Austrian bank-Credit-Anstalt failed. Chandler has given the following graphic description of the great panic following the failure of the credit Anstalt

[12]J.M. Keynes, *Essays in Persuasion*, 1931, p. 244.

"This raised doubts as to the ability of any Austrian bank to meet its obligations, and not only foreigners but many Austrians withdrew large amounts of funds.......So great was the flood of withdrawals that it exhausted large loans from the Bank of England and the Bank of International Settlements as well as Austrian holdings of gold and foreign money. Consequently, Austria was forced to terminate the convertibility of its money into gold.

The panic was now on. Fearful creditors withdrew their credits from Berlin, and frightened Germans joined the run.........Germany suspended gold payments in July 1931.....Reinforced, the panic swept on to London, from where credits were rapidly withdrawn.......England departed from gold on 21 September, 1931. The retreat from gold now became a rout."[13]

The gold standard was restored in England in April 1925 and it was abandoned on 21 September 1981. Keynes was happy on the occurrence of the event and remarked that the long awaited end had at last come. England's economy had suffered from deflation and the nation-wide labour strike of 1926. The wholesale price index in the economy had fallen by 37.6 per cent while that of manufactured exports fell by 28.6 per cent between April 1925 and September 1931. He felt that the devaluation of the pound would enable England and her rulers to think and act in a more realistic manner since the golden fetters had been eventually broken. England was followed by the Scandinavian Countries, Greece, Portugal, and South Africa. Australia, New Zealand and many Latin American countries had already suspended the gold convertibility of their currencies. In USA, the banks were faced with the unprecedentedly large deposit withdrawals. In order to save the national banking system from collapsing, President Franklin Delano Roosevelt declared on March 6, 1933 four days' national bank holiday forbidding banks to transact any business and in particular prohibited banks from paying gold coins or bullion or currency, except with the permission of the Secretary of the Treasury. This in effect meant suspension of the gold standard. In April 1933, the dollar had also been declared inconvertible into gold and it was formally devalued on 30 January 1934, when Congress passed the Gold Reserve Act fixing the statutory price of gold at $35 in place of the earlier price of $20.67 per ounce. After the dollar's devalution only few countries led by France had managed to remain on the gold standard but these too suspended the gold convertibility in 1936. In short, by 1936 the gold standand had virtually disappeared from the world as an international money system. Its coffin was firmly nailed.

Several factors contributed to the breakdown of the postwar gold standard. In the first place, the war disrupted the normal course of international trade

[13]Lester V. Chandler. *The Economics of Money and Banking*, Revised Edition, 1958, pp. 143-44

and lending causing redistribution of world's total monetary gold reserves in such a manner that vast concentration of these official gold reserves had taken place in France and the United States in the postwar period. This excessive concentration of the world's monetary gold reserves with only two countries was not conducive for the smooth functioning of the international gold standard which assumes fairly equal distribution of these reserves. The following figures are revealing in that they show the heavy concentration of the world's gold reserves with France and the United States of America.

The second factor contributing to the collapse of the gold standard was the reluctance of the monetary authorities of the gold standard countries to observe the rules of the gold standard game and to show exclusive devotion to the aims of the gold standard.

France, UK and US Gold Stocks, 1919 — 1929[14]

(In millions of pound-sterling)

	France	*UK*	*USA*
End - 1919	143	120	520
End - 1929	336	146	800

The central banking authorities did not observe the golden rule by allowing gold inflows to pile up in their cellars without allowing such inflows to expand money supply and raise prices. Similarly, the effect of gold outflows did not manifest itself in the form of required credit contraction and the fall in prices. In this respect, France,USA and England were all to be equally blamed.

Thirdly, the relatively complex nature of the postwar gold standard was also a factor contributing to its breakdown in the thirties. The postwar gold standard was a hotch-potch mixture of the gold bullion and gold exchange standards compared with simple to operate prewar gold coin standard. The postwar gold standard, requiring frequent manipulation on the part of monetary authorities, lacked the 'automatic' character of the naive prewar gold standard.

Fourthly, in the changed postwar world the economies of the gold standard countries were much less flexible than was necessary for the successful functioning of the international gold standard.

Furthermore, a peculiar phenomenon of international short-term funds that were highly sensitive to interest rates differentials and to shifts in confidence in foreign currencies also contributed to the breakdown of the postwar gold

[14]Looking to the substantial production of gold in South Africa during the decade 1919-1929 and England's role as a banker for the Commonwealth countries, the UK statistics are inconsistent with the substantial gold outflow during the period

standard. It caused the problem of 'hot money' movements that were quite unheard of in the pre-war period. In short the widespread use of gold exchange standard, the massive hot money movements, disequilibrium relationships among the various national price levels, and reluctance shown by the monetary authorities to follow the golden rules of the gold standard game in order to equilibrate their international balances of payments, and the like factors all contributed to the breakdown of the gold standard in the 1930s.

Era of Unstable Exchange Rates

During the period of eight years between 1931 and the outbreak of the Second World War in 1939 world countries lived in an era of inconvertible currencies and fluctuating exchange rates. The period of fluctuating exchange rates started with the devaluation of the pound-sterling in September 1931. It was realised that excessive fluctuations of exchange rates , particularly the competitive depreciation of currencies, caused great uncertainty and were harmful for the development of orderly international trade and capital transactions.

Establishment of Exchange Stabilisation Funds

In order to stabilise the foreign exchange rate, a scheme seeking to establish government monopoly in the foreign exchange market was first devised in England. The scheme known as the Exchange Equalisation Account or Exchange Stabilisation Fund came into operation in June 1932. It had three-fold purpose to serve. Firstly, it was sought to establish monopoly control of the Treasury over the foreign exchange transactions considered politically and administratively essential. The second aim of the scheme was to insulate the domestic monetary system from the multiple disturbances taking place in country's external balance of payments position. Thirdly, it was sought to keep out the operation and influence of the free market forces in the foreign exchange market. With the fall of the dollar in 1933 and of the franc in 1936 similar funds were also set up in America and France. On 25 September 1936, the so-called Tripartite Monetary Agreement was entered into between England, USA and France symbolising international cooperation in order to stabilise exchange rate relationships and to avoid competitive depreciation of their currencies. Later, in October 1936 Belgium, Holland and Switzerland also joined the scheme by adhering to the terms of the Agreement. The Tripartite Agreement "was a somewhat nebulous document, but its main points were that the three countries would cooperate to prevent excessive fluctuations, that they would consult one another before permitting any major change in their currencies' relative values, and that they would not in any case undertake any competitive depreciation or excessive undervaluation. The Agreement was not a step back in the direction of

permanent stability; on the contrary, it was used to secure several changes in exchange rates. But it "was an assurance that there would be substantial day-to-day stability of the exchange rates, that large changes would be done by agreement and that no country would be prejudiced by another's currency policy."[15] In short, the Agreement was an assurance of a policy of short-term exchange rate stability on the part of signatory countries. The Agreement lasted till the outbreak of the second war in September 1939 because even though it was not formally terminated the currency arrangements which existed during the war were very different from those that had been envisaged in the Agreement. After the war, a new international monetary system based on the scheme of the Bretton Woods Conference and operated through the IMF came into existence and now the Bretton Woods monetary system has also been overhauled as a result of the new scheme of evolutionary reform of the international monetary system.

SUGGESTED READINGS

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R.P. Kent, *Money and Banking*, Fourth Edition, Chapters 2 and 3.

Lester V. Chandler and S.M. Goldfeld, *The Economics of Money and Banking*, Seventh Edition, 1977, Chapter 20.

Geoffrey Crowther, *An Outline of Money*, Revised Edition, 1958 reprint, Chapter 9.

A.C.L. Day, *An Outline of Monetary Economics*, Chapters 35 and 38.

QUESTIONS

1. Discuss the essential features of the pre-1914 gold standard. In what respects was the pre-1914 gold standard different from the post-war gold standard ?

2. "The gold standard limits the freedom of national monetary policies but it also safeguards every nation against excessive instability of which badly mismanaged inconvertible currencies have proved themselves capable." Discuss.

3. "A country which stays on the gold standard thereby gives up the privilege of following whatever monetary policy it likes." Discuss this statement fully and mention the causes that led to the collapse of the international gold standard in the 'thirties.'

4. Discuss the factors that compelled the gold standard countries to abandon the gold standard in 1931 and thereafter.

5. **"The gold standard is essentially a *laissez faire* standard. It rules out such methods of economic management as involve restrictions on economic transactions." (G.D.H. Cole)**

[15] Geoffrey Crowther, *An Outline of Money*, Revised Edition, reprint 1958, p. 325.

Gold Standard

Discuss the standard in the light of the monetary history of England and USA between 1920 and 1933.

6. "The operation of the gold standard required certain 'rules of the game' to be observed by the countries concerned and when the rules came to be violated, the standard had to face considerable difficulties." Discuss the above statement explaining the so-called rules of the gold standard game.

7. The failure of the post-war gold standard was due to the violation of the rules of the gold standard game by the major gold standard nations. Discuss.

13 PAPER STANDARD

The use of paper money in the form of paper currency and inconvertible bank notes issued by the central bank has today become so much universal that present national monetary systems are, without exception, paper money standards characterised by inconvertible treasury and/or bank notes in circulation. The salient feature of paper standard is not the circulation of paper money because paper money may be found in circulation even under the gold or silver standard. But such paper money is a warehouse receipt convertible into specified quantity of gold or silver. The salient feature of paper standard is that the paper money in circulation is not convertible into gold or silver. It is for this reason that paper standard is variously known as the fiat standard or managed standard.

The now universally adopted paper money became a common sight only during and after the First World War when the international gold standard collapsed in the thirties. Although paper notes circulated from hand to hand much before the era of inconvertible paper money began, such notes were convertible into gold and these represented the gold coins in which these were convertible. In early times, the issue of paper money was associated with the unusual war periods when impecunious governments were provided the much-sought-after 'paradise of fiscal freedom' by the issues of paper money. The issue of paper money has been found the most convenient residuary method of financing the expenditure by all governments. A government can seek its protection when it cannot find any other method. According to Keynes, "a Government can live for a long time, even the German Government or the Russian Government, by printing paper money. That is to say, it can by this means secure command over real resources... The method is condemned, but its efficacy, up to a point, must be admitted. A Government can live by this means when it can live by no other. It is the form of taxation which the publics find hardest to evade and even the weakest government can enforce when it can enforce nothing else."[1]

The first use of paper money was made in China where the origins of paper money can be traced back to the antiquated issue of 'White Stag Notes' and

[1] J.M. Keynes, *A Tract on Monetary Reform*, 1923, p. 41.

where the printed paper money was invented by the Sung government in 970 A.D. The well-known British historian Arnold J. Toynbee, quoting the authority of C.P. Fitzgerald ably narrates the early use of paper money in China in the following description:

"In the imperial park at Ch'ang Nagan the Emperor had a white stage, a very rare beast, which had no fellow in the Empire. On the advice of minister, the Emperor had this animal killed and made a kind of treasury note out of its skin which, he believed, could not be copied. These pieces of skin were a foot square (each piece being assigned the arbitrary value of 4,00,000 copper coins). The princes, when they came to pay their respects to the throne, were compelled to buy one of these pieces of skin for cash and present their gifts to the Emperor upon it. This precaution ensured the circulation of the 'White Stag Notes.' The skin of the white stage was, however, a limited quantity, and the time soon came when this device ceased to supply the Treasury with much needed money."[2]

Continuing further Toynbee writes :

"In A.D. 970 the invention of printed paper money was taken up by the Sung government, and in China and its dependencies from that date onwards (until A.D. 1425) paper money was continuously and ubiquitously current (when it was withdrawn in the aftermath of hyperinflation). No further issues of paper money were made in China until A.D. 1851 when the Manchu dynasty, in its turn, was declining towards its fall."[3]

In the Continental Europe, fiat paper money was issued in France in 1788 before the famous French Revolution by a royal edict on 16 August 1788. However, due to the strong public opposition the royal order was revoked within only a month. Not long after, however, the government was forced by the exigencies created by the French Revolution to issue inconvertible paper currency, known as Assignates, in December 1879. In England, paper notes were printed around 1729. In the United States of America, inconvertible Greenbacks were issued during the Civil War days and in 1864 their circulation had touched an all-time high figure of US $ 431 million.

Merits and Demerits

The case for paper standard is based on the arguments against the gold standard which robs the country of taking whatever action suited her domestic interests and which frequently created difficulties for the country in times of economic crisis. The gold standard, say the critics, was a fair weather friend. They also question the 'virtue' of the so-called automatic operation of the gold standard according to which the supply of money and credit fluctuated

[2]A.J. Toynbee, *A Study of History*, Volume VII, p. 313, reproduced from C.P. Fitzgerald, *China, A Short Cultural History*, p. 165.

[3]*Loc. cit., Supra*, p. 313.

not according to the needs of the economy but according to changes in the volume of gold reserves and gold movements They also draw attention to the great price instability that raped the economies of the gold standard countries.

The supporters of the paper standard argue with considerable force that the quantity of money required in any country is a function of the volume of business transactions, organisation of the industry, structure of the banking system, development of credit and credit instruments, means of transportation and communication, etc. factors which are in no way directly related to the volume of gold reserves a country may hold. It is, therefore, obvious that a monetary system based on gold has no relevance to economic facts. If in order to exploit unused national economic resources additional money supply is required it should be made available whether or not additional gold reserves are available to satisfy the money expansion. Conversely, if looking to the need of economic stability the money supply needs to be reduced then it must be reduced even though abundant gold reserves exist. Under the gold standard neither expansion nor contraction of money supply is always possible at the required time and in the required quantity. In other words, the monetary system of the country becomes perfectly inelastic and merely dances on the chessboard of gold reserves. Through the recorded history full utilisation of national physical and manpower resources has been obstructed frequently by the inadequacy of monetary gold reserves rendering the creation of sufficient credit difficult.

All these drawbacks are removed under paper standard. The country's monetary system becomes elastic whereby the supply of money and credit responds to the economic needs of the country. Under paper standard it is possible to manipulate the money supply and use money in such a way as to encourage the full employment of national resources and to make quick adjustments to meet the changing industrial conditions. In short, under paper standard money can be endowed with a flexibility that is impossible under the gold standard. In an age of economic planning adopted as a means to promote economic growth the gold standard is an anachronism. But for the universal adoption of fiat paper standard, deficit financing as a means of obtaining resources for economic development would never have been available to the governments of developing countries. In fact, one cannot think of economic planning as an instrument of consciously directed growth under the *laissez-faire* approach of the gold standard.

The paper standard, however, has certain serious disadvantages. Firstly, the critics argue that the universal adoption of paper standard would result in confusion in the sphere of international trade and finance as under fiat standard there would be virtually no limit to fluctuations in the rates of exchange of different currencies. In such a situation, international commerce becomes a gamble in uncertainty and to the usual hazards of commerce that

exporters and importers are prepared to bear are added the hazards of unwanted and avoidable losses resulting from exchange rate fluctuations. Moreover, the happenings of the interwar period after the breakdown of the gold standard tell us that under fiat standard there is hardly any check on the governments from indulging in deliberate act of competitive exchange rate depreciation of their currencies. Once this starts there is no end to it because it invites retaliation leading to virtually unending currency depreciation wars among the countries or to the adoption of various other measures to control imports and exports, including various forms of exchange control, import and export trade controls, tariffs, embargoes, subsidies, drawbacks etc., which throttle the development of international trade.

The greatest drawback of paper standard is that the issue of paper money is highly inflation-prone and the danger of overissue by impecunious governments is never absent. In fact, history supports the view that all hyper-inflations have been associated with the excessive issue of fiat paper money by governments. Whatever may be the criticism of the gold standard, it places a maximum limit on the power of the government to indulge in the creation of money and bank demand deposits because the volume of credit cannot exceed the prescribed multiples of the gold reserves. No such safeguard exists when the currency system of the country is on the paper standard. Consequently, resort to the printing press is frequently taken by the governments when no other easier method is found available to raise revenues to finance their spending programmes. Modern man's dread against paper money is derived largely from the recent memories of hyper-inflations that were spurred by the reckless over-issue of paper money undertaken by impecunious governments in order to finance their unproductive spending.

Right of Note Issue

Since paper notes constitute the sheet-anchor of the paper standard it is of utmost importance to decide the authority which should be empowered to print notes. The problem of note issue basically involves the need to take decision with regard to two basic questions, *viz.*, (1) should the right of note issue be vested in the government or in the banks? and (2) if it is decided to vest the authority to print notes in banks, should this authority be vested in a single bank or should all the banks or a group of banks in the country be authorised to print or issue paper notes? Opinions are sharply divided on the first issue. There are those who favour the right of note issue to be vested in the government because in their opinion notes issued by the Treasury would carry with them greater prestige than when these are issued by a bank and consequently would command greater confidence of the public. It is also argued by the supporters of this view that the government can handle the delicate matters connected with the note issue more efficiently. Moreover,

note issue, which is a very profitable business, should not be entrusted to private banks which being run on commercial principles would indulge in reckless over-issue of notes ignoring the national interest of economic stability.

As against those who support government monopoly in the matter of note issue, the critics argue that governments are proverbially slow and inefficient and in money matters quick decisions and high efficiency which the government is incapable of providing are needed. Consequently, note issue should not be left in the hands of government; it should rather be entrusted to specialised institution such as the central bank which has the necessary knowledge of handling monetary and financial matters since its business is to deal in money. Arguing the case against entrusting the delicate function of note issue to the government, Dadachanji has correctly stated that "a government whose primary duty is to look to the security of the currency system is naturally forced to study the problem that arises, time elapses before any action is taken and the emergency demand may go unsatisfied. It may, therefore, happen that at times the supply of currency may be less than its demand. There may be stringency of money or that the supply may exceed the demand, *viz*, there may be over-issue of money."[4] Highly placed government servants who are efficient in handling political and administrative problems frequently lack the temperament to tackle financial problems which require the development of pecuniary habit for their efficient tackling. The banking institutions managed by financial experts are, therefore, best suited to discharge the important function of note issue.

Moreover, if currency notes are issued by the government, there will be no effective authority to prevent the misuse of this authority by the government. Parliamentary control over the executive is not very effective. On the other hand, if notes are issued by the banks, the government can exercise effective control over the banks so as to prevent them from misusing the power to print notes. Looking to all these aspects of the problem, the trend in modern times has been in favour of entrusting the business of printing notes to the banks.

About the second question, it is now unanimously agreed that the function of note issue should be entrusted to a single bank not motivated by profit rather than permit a few or many banks to issue notes. In the event notes are issued by two or more banks it will be difficult to locate the responsibility for over-issue of bank notes. Commercial banks' operations are guided by profit motive and since printing of notes is a very profitable proposition banks may indulge in reckless overissue of notes causing irreparable damage to the economy. If only a single bank is permitted to print notes then it will be easy to detect mischief and issue orders for execution of the offender. Moreover,

[4]B. E. Dadachanji, *Reserve Bank of India and the Money Market*, p. 8.

the independence of a bank with monopoly privileges would remove from it temptation that may be presented in competition with rivals to increase its issue beyond the limits of safety. The note issue work carried on by a single bank "puts an unmistakable duty upon those in whose hand the course of monetary affairs rests and makes impossible the negligence and irresponsible venturesomeness observable with a multitude of competing banks."[5] In modern times, the monopoly of note issue is a privilege enjoyed by the central banks in all the countries in the world.

Principles of Note Issue

The two known principles of note issue are the currency principle and the banking principle. These two principles derive their names from their close association with the serious controversy which developed in the 19th century in England between the members of the two rival schools, namely the currency school and the banking school[6] The most prominent members of the currency school were Robert Torrens, Lord Overstone (Samuel Jones Loyd), G.W. Norman and William Ward while Thomas Took, John Fullarton, James Wilson, and J.W. Gilbart led the banking school. The controversy between the members of the two schools was concerned essentially with the short run issues because on the questions of what determined the quantity and the value of a metallic currency in the long run, both the schools followed the 'classical' or 'Ricardian' doctrine.

According to the currency principle, a sound system of note issue is that which commands the greatest confidence of the public in the country. This is possible only when paper currency is fully convertible into gold. For this, the note issue must be backed by 100 per cent gold reserves. In a way, this situation is nothing different from that under the gold currency standard. According to the currency school, the object of issuing paper currency was simply to economise in the use of metal and to save metal from waste resulting from wear and tear in case the gold coins circulated from hand to hand. Under the 100 per cent reserves system, changes in the amount of notes issued would be accompanied by indentical changes in the gold reserves backing by the monetary authorities.

It is obvious that under the currency principle of note issue the monetary system would operate in an automatic manner comparable under the gold standard leaving nothing to chance or caprice of the government. It would also insulate the system from the danger of inflation resulting from an over-issue of currency. It would also create public's confidence in the note issue. All these merits notwithstanding, the monetary system of the country would,

[5]Richard Jones, *Economic Crisis*, p. 11.

[6]A rich discussion of the controversy can be found in Jacob Viner's scholarly work entitled *Studies in the Theory of International Trade* 1937, Chapter V

however, become inelastic and could not be operated by poor countries lacking in the adequate gold reserves. Moreover, since large stock of gold would be locked in the form of currency reserves, the currency principle of note issue is not economical and indirectly amounts to the revival of the gold coin standard. Consequently, if notes are issued on the basis of the currency principle, many advantages of paper standard would disappear. Indeed, the conditions prescribed by the currency principle are so onerous that only a few countries can satisfy them. If a country were in a happy position of maintaining 100 per cent monetary reserves, why would it then not adopt the gold standard and enjoy the prestige of a rich nation?

According to the banking principle of note issue, country's currency system should be elastic and consequently instead of 100 per cent, only a fraction of the total value of note issue need be kept in the form of monetary gold reserves. Since the common man rarely brothers to convert every unit of paper money into gold as long as he can obtain goods in exchange for it, it is not necessary to keep 100 per cent gold reserves against the issue of paper notes. The banking principle of note issue is economical to operate and also allows certain limited degree of autonomy to the note issuing authority to adjust the total supply of money to the needs of the country.

Methods of Note Issue

The following different methods or systems of note issue have existed in different countries at different points of time :

1. Simple deposit system.
2. Maximum fiduciary system.
3. Fixed fiduciary system
4. Proportional reserve system.
5. Minimum reserve system.
6. Percentage reserve system.
7. Bonus deposit system.

We may now very briefly explain the salient features of each system of note issue.

1. Simple deposit system : Under this method of note issue, the issue of paper currency is fully backed by the monetary gold or silver or both metals' reserves. In fact, this method of note issue is based upon the currency principle of note issue. Since it involves the keeping of full or 100 per cent gold reserves against the issue of paper notes it is very costly and has consequently never been practised.

2. Maximum fiduciary system : In this system, a ceiling limit is fixed above which issue of paper notes must be backed by 100 per cent monetary gold reserves. Thus, all notes above a given uncovered (fiduciary) issue have

to be backed by 100 per cent monetary reserves. The limit of the fiduciary is fixed by taking into consideration the monetary requirements of the economy. This system operated in England, Finland, Japan, Norway and Russia.

3. Fixed fiduciary system: Under this system, the central bank is empowered to issue notes against reserves of government securities whose amount is fixed by law and paper note issue exceeding this legal limit must be backed by 100 per cent gold or silver reserves. This system was first adopted in England in 1844 by the Bank Charter Act of 1844 fixing the fiduciary issue limit at 14 million pounds. In India also this system was in operation till 1920. The fiduciary issue limit which was initially fixed at Rs. 4 crores in 1861 was subsequently raised from time to time till it reached the level of Rs. 120 crores in 1920.

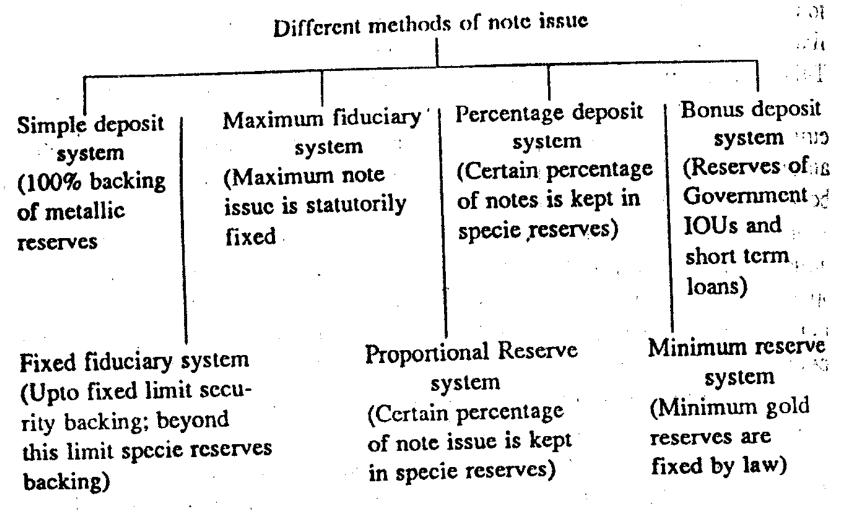
4. Proportional reserve system: In this system, issue of paper notes is backed by a certain given proportion in the form of gold or silver reserves and the rest is backed by reserves of domestic government securities. This system of note issue is simple to operate and has been in operation in several countries including Belgium, Holland, Switzerland, and India. The proportion or percentage of specie reserve has been different in different countries.

5. Minimum reserve system: In this system, the minimum gold reserves against the issue of paper notes which the monetary authority is required to keep are fixed by law. These reserves must be maintained irrespective of the amount of note issue. Beyond this limit, notes may be issued without increasing the reserves. This system has the merit of economy and elasticity. This system is in operation in India at present and the Reserve Bank of India is required to hold the minimum reserves of Rs. 200 crores of which not less than Rs. 115 crores must be held in the form of gold reserves holdings.

6. Percentage deposit system: Under this system, a certain percentage of the total notes issued is kept in the form of gold reserves although a certain percentage of reserves may also be kept in the form of foreign exchange. Upto 1956, this system was prevalent in India and the Reserve Bank of India held 40 per cent of the total amount of notes issued in the form of gold reserves while 60 per cent could be kept in the form of sterling securities' reserves. This system of note issue is economical and can be adopted by poor countries.

7. Bonus deposit system: In this system of note issue, the reserves are kept in the form of government treasury bills which are short-term IOUs of the government. This system was adopted in India in 1902 although it was subsequently given up. Prior to 1913, the national bank notes in America were issued according to this system of note issue.

The above discussed various methods of note issue may be explained by means of the following chart.



SUGGESTED READINGS

M.H. De Kock, *Central Banking*, Third Edition, Chapter II.
R.P. Kent, *Money and Banking*, Fourth Edition, Chapter 4.
Jacob Viner, *Studies in the Theory of International Trade*, 1937, Chapter V

QUESTIONS

1. What is meant by paper currency ? Discuss the advantages and disadvantages of paper money standard.
2. Discuss the different methods of note issue. Which of these do you prefer and why ?



E. Victor Morgan

A History of Money



Penguin Books

Chapter 7

International Money

Origins of foreign exchange - medieval exchange markets - beginnings of forward exchange - emergence of London as a centre for exchange dealings - the merchant banks - the nineteenth-century gold standard - the First World War - the post-war gold standard - 'free' exchange rates - the Exchange Equalization Account - the Second World War - the International Monetary Fund

Transactions between people resident in different countries usually involve an exchange of currencies, and important financial centres have, in addition to the markets described in the last chapter, organized foreign-exchange markets. Until quite modern times, however, a large part of international trade was in the hands of travelling merchants, who carried their goods abroad, sold them for the local currency, and used that currency to buy local products, which they then brought home. When import and export transactions are combined in this way, there is clearly no need for an exchange of currencies. The same effect is produced if both parties to a transaction agree to make and receive payment in the same currency, and in fact between a quarter and a third of present-day world trade is financed by payments in sterling. Similarly there is no need for an exchange of currencies when, as sometimes happened in ancient and medieval times, the currency of one country freely circulates, either by tale or by weight, in another.

Despite these limitations on the volume of foreign-exchange business, the exchange of currencies goes far back into the ancient world; it was among the earliest activities of bankers and, until the seventeenth century, the terms 'bank' and 'banker' were used mainly for dealers in international credit and exchange

The exchange of currencies can, of course, be carried out either by the actual changing of coins or by the sale of rights to receive payment. The exchange of coins in the ancient world was a complicated business; there were a very large number of cities and states each with their own coinage; coins were struck from a variety of metals including gold, silver, electrum (an alloy of gold and silver), copper, and bronze; the mint ratios between the different metals varied from place to place and often diverged from the ratios of their market values; worn, clipped, mutilated, and counterfeit coins were common and debasement was all too frequent. The money-changer had to cope with a confusing mass of material which demanded expert knowledge but gave considerable opportunities for profit. Money-changing was one of the main functions of bankers in the Greek city-states and the Greek name for them (*trepezitai*) is derived from the tables which they set up in the market place and used for the exchange of coins. Like other forms of banking, it was often associated with temples, and the money-changers whom Jesus drove out from the temple of Jerusalem had predecessors for some hundreds of years in many temples of the Aegean and the Middle East. The exchange of coins remained an important business for many centuries but it was gradually superseded by the trade in bills of exchange; its declining importance was recognized in the name *cambium minutum*, or 'petty exchange', by which it was generally known in the later Middle Ages.

Babylonian inscriptions going back as far as 2000 B.C. show that traders were issuing obligations entitling the sellers of goods to receive payment in the future and in places other than those in which the goods were delivered, but the development of money was not yet sufficiently advanced for us to regard these as true transactions in foreign exchange. The cost of transporting the precious metals and the risk of robbery gave a strong incentive to find other means of making international payments. A transaction of this kind (about 393 B.C.) is described in the course of one of the several lawsuits involving the Athenian banker Pasion. The plaintiff, represented by Isocrates, states that, 'When Stratocles was about to sail for Pontus, I, wishing to get as much of my money out of that country as possible, asked Stratocles to leave with me his own gold and on his arrival in

Pontus to collect the equivalent from my father there, as I thought it would be highly advantageous not to jeopardize my money by the risk of a voyage, especially as the Lacedaemonians were then masters of the sea.'[1] There are other literary references to this kind of transaction both in Greek and Roman times, but there is not enough evidence to show how frequent they were, or whether the documents concerned ought to be regarded as precursors of the bill-of-exchange or of the modern letter of credit.

Documentary evidence of international credit transfers begins with the records of twelfth-century Genoa and the evidence on the evolution of the bill of exchange has been summarized in Chapter 6.[2] By the thirteenth century there was an organized system of international payments between the main commercial centres of Europe, which was well adapted to the needs of contemporary trade. The cities of Spain and Italy had communities of resident merchants engaged in an entrepôt trade and served by resident bankers. In addition to the domestic functions described earlier, these bankers arranged for international payments by drawing bills on correspondents in other centres. However, a large volume of international trade was still in the hands of itinerant merchants who congregated periodically at the great international fairs. In the thirteenth century, the fairs of Champagne were pre-eminent but later they were rivalled and eventually surpassed by those of Lyon, Flanders, and Castile.

Payments at the fairs could, of course, be made on the spot and in cash, but transactions were usually entered in the books of a banker and then held over until a fixed settling period at the end of the fair. At these general settlements, not only did individual traders pay their debts and receive their due, but the bankers were able to offset against one another debts and credits among the merchants of each centre, so that only balances needed to be settled either by the exchange of coin or by drawing bills payable at a later fair.

Besides payments arising in the course of trade, foreign-exchange transactions were also necessary in connexion with

1. Isocrates, *Trepeziticus*, translated L. van Hook, (Loeb ed.), Heinemann, 1945, p. 235.
2. See pp. 131–2.

loans and with the remission of Papal revenues, and these, too, were centred on the fairs. In 1260 a merchant house of Siena, the Tolomei, informed their agent in Champagne that they had sold bills in Siena payable at the next Champagne fair, to raise money for a war against Florence, and in 1274 Edward I borrowed from merchants of Lucca in the same way. The Papacy usually arranged with Italian merchant bankers in foreign countries for the remission of its revenues. In England the process was closely linked with the export trade in wool; the papal nuncio would pay the proceeds of his collections to Italian merchant bankers in London who would use them to buy bills payable at the fairs from English wool exporters. In this way the British seller of wool obtained payment in sterling, and the Italian banker obtained credit at one or other of the fairs; this credit could then be sold to an Italian who had payments to make at the fair, in return for a bill payable in Italy.

The international payments system of the thirteenth and fourteenth centuries thus contained the essentials of what we should now call a system of multilateral clearing. Individual operators paid their debts abroad by purchasing claims to payment in their creditor's currency; a credit in any one centre could (by an appropriate sale and purchase) be used to discharge a debt in any other; and, in the process, the total debts and credits accruing in each centre were offset against one another, so that only balances needed to be settled in cash or by borrowing. Finance bills, of the kind shown on p. 132, were common and arbitrage transactions kept rates in different centres roughly consistent with one another.

Before the end of the fourteenth century, the bill of exchange and the methods of using it in international payments had reached a form which did not greatly change for the next five hundred years. During that time the fairs declined and were replaced by transactions between resident bankers and their foreign correspondents; the financial centre of gravity shifted away from the Italian cities to Bruges, then to Antwerp, and again to Amsterdam; the volume of transactions increased greatly and so did the number of financial centres in which organized markets were to be found.

In several centres, including Venice and Amsterdam, public

banks were formed, and bills of exchange were made payable by transfers in the bank books. This was a convenience for both international and domestic transactions and in Amsterdam the bank money often commanded a premium over the worn and clipped metallic currency.

Medieval and early modern foreign exchanges were subject to the same fundamental rules as govern any system of inter-related metallic currencies but the framework within which these rules operated was very different from that of more modern times. Under the gold standard as it developed towards the end of the nineteenth century, gold served as a standard of international value and as the means of payment of any balances which could not be adjusted in the foreign-exchange market; gold coin was in circulation and notes and bank deposits were freely convertible into gold; there were no restrictions on gold exports and mints were open for the free coinage of gold; and, after the development of the railway and the steam ship, transport costs were low. Currencies, therefore, always exchanged at a ratio close to their mint par (i.e. the ratio of their gold content). When a country had a debit balance this, of course, created an excess demand for foreign currencies, the value of foreign currencies tended to rise, and t[illegible] of the home currency to fall in the foreign-exchange market. But this movement could go only a short way before it became cheaper to export gold and exchange it for foreign currencies, instead of buying these currencies in the market. Immediately before the First World War, the mint par between the pound sterling and the U.S. dollar was $4.85 to £1; it became worth while to export gold when the value of the pound fell to $4.827 and to import gold when the pound rose to $4.90.

In medieval and early modern times gold and silver were both used in national currencies and for international payments; the expense and risk of transporting the precious metals was very much greater; coins were often worn and clipped to a small fraction of their legal weight; most countries prohibited the export of the precious metals (though these laws were seldom very effective) and mints usually charged a seignorage. Finally, since bills of exchange were sold, not discounted, the rate of interest appeared as an influence on the exchange rate; a rise in

the rate of interest would reduce the amount which a banker was prepared to pay for the right to receive any given amount of foreign currency in the future, and so it would appear to cause a fall in the exchange value of the domestic currency.

As a result of all these features fluctuations in exchange rates were much wider than they were under more modern metallic standards; and transfers of the precious metals played a smaller part in adjusting international balances. Medieval merchant bankers were well aware of the relative costs of buying bills and shipping coin or bullion, and they were quite prepared to ship the precious metals (even in defiance of the law) if it was worth their while. However, specie movements were sporadic and, when they did occur, it was often in response to changes in the relative prices of gold and silver rather than to changes in the balance of international payments.

The wide range of exchange fluctuations gave opportunities for speculation and encouraged attempts to rig the market, both by groups of merchants and by governments. A famous example was the manoeuvring of Sir Thomas Gresham in Antwerp. As financial agent for the Crown, Gresham had the problem of repaying considerable sums which the British monarchy owed to the Fuggers and other Antwerp financiers without depressing the exchange. On several occasions between 1552 and 1561 he put pressure on the Merchant Adventurers to turn over to him, against bills payable in London, the proceeds of their sales of cloth in Flanders. At the same time, he managed to keep off the market, by a mixture of cajolery and threats, would-be purchasers of Flemish currency to pay for imports into Britain and so, according to his own account, he raised the value of sterling and paid off the royal debt on terms very advantageous to the Crown. Contemporary writers often accused the bankers of manipulating the exchanges and in this they were encouraged by the boasts of men like Gresham. In practice, however, this kind of operation probably caused no more than a temporary divergence from the trend established by ordinary market forces.

The prevalence of exchange fluctuations gave an incentive to devise means of avoiding the risk of loss by an adverse movement and, as early as the thirteenth century, papal agreements with their banking agents fixed for a year at a time the rates

at which the revenues of the Church were to be transferred. During the sixteenth century a system of betting on the exchanges grew up in Spain and the Netherlands. One party bet the other that a certain rate would not be above (or below) a certain figure at some future time, and the loser paid the winner the difference between the actual rate and the forecast one. Moralists condemned this form of gambling and governments tried to suppress it, but it served a useful purpose. The person who had a payment to make or receive in the future could 'hedge' against the exchange risk by making a bet, in such a way that, if the exchange moved against him in his trading transaction he would win on his gamble. More modern forms of forward bargain probably grew up in the seventeenth century, but the first documentary evidence is from 1702, when the British Treasury bought forward Dutch guilders to defray the expenses of Marlborough's armies.[1]

During most of the seventeenth and eighteenth centuries, Amsterdam was by far the most important centre for foreign-exchange dealing, but London was emerging as a sizeable market from the end of the sixteenth century. The Royal Exchange, built by Sir Thomas Gresham, was opened by Queen Elizabeth in 1571, and was the main centre for foreign-exchange transactions until the nineteenth century. For a long time, however, there was little specialization; the Royal Exchange was frequented by merchants whose dealings in bills were incidental to their dealings in commodities; and the same brokers often acted as intermediaries in both types of transaction.

In this respect development in Britain was rather different from that on the Continent. In most Continental countries foreign exchange was the concern of the banks, and specialization in this field proceeded faster than in other aspects of banking. The eighteenth-century French writer Savary defines banking as, 'a traffic in money, which is remitted from place to place, from one city to another, by correspondents, and by means of bills of exchange'. English banks, however, concentrated on domestic business and Savary's translator and commentator, Malachi Postlethwayt, is careful to distinguish between domestic

1. P. Einzig, *The History of Foreign Exchange*, Macmillan, 1962, pp 120–1.

and foreign banking, and remarks, 'In England we have but very few of this kind of foreign bankers in comparison to the number there is in Italy, France, and Holland.'[1]

Dealing in bills was still carried on mainly by merchants and it was not until the evolution of the great merchant banking houses of the nineteenth century that specialization became the rule. Nevertheless, the eighteenth-century market was a quite sophisticated one, with regular quotations on more than a dozen European centres and a complex system of arbitrage. In his article on arbitrage, which he calls 'arbitration', Postlethwayt gives a diagram illustrating arbitrage (i.e. dealings designed to make a profit from differences on rates between various centres) between London, Amsterdam, Rotterdam, Antwerp, Hamburg, Paris, Bordeaux, Cadiz, Madrid, Bilbao, Leghorn, Genoa, Venice, Lisbon, Oporto, and Dublin. He comments that 'the variety [of transactions] is very great; and, consequently, the opportunities of profit are great in proportion to the London merchant or remitter, provided he is sufficiently skilled to embrace all those opportunities which, we will presume to say, almost daily offer'.

The French wars of 1793–1815 brought the first British experience of an inconvertible paper currency, and the resulting fluctuations in commodity prices, in exchange rates, and in the price of gold have already been recorded (see p. 25). There was not, however, any great change in the mechanism of international payments; dealings in bills of exchange continued as before and, so far as the foreign-exchange market was concerned, the inconvertible notes of the Bank of England were not very different from the debased coin of Henry VIII. The effect of both was to cause the precious metals to rise in price in terms of the unit of account, and to widen the range within which exchange rates could fluctuate.

Far more important were the changes which took place shortly after the end of the war. By an Act of 1816, gold was declared the sole measure of value and only gold coins were to be legal tender for sums over £2; the first sovereigns were issued in 1817;

1. Savary, *Universal Dictionary of Trade and Commerce*, translated 'with large additions and improvements' by Malachi Postlethwayt, London, 1751, pp. 193 and 195.

in 1819 the restrictions on the export of coin and bullion derived from the melting of coin were removed; and in 1821 the Bank of England resumed the payment of its notes in gold. The mint charges had been abolished as long ago as 1666; the milled edge (also a seventeenth-century invention) had defeated the clippers; and the continuous withdrawal of worn sovereigns kept the currency up to a very high standard. The artificial obstacles that had so long impeded the movement of gold were thus removed and, with improvements in communications, gold transfers came to play an increasingly important part in the mechanism of international payments, and exchange fluctuations were confined within progressively narrower limits.

The world was not yet, however, on an international gold standard, for Britain was the only country which had put gold in this unique position. The United States and the main Western European countries were on a bi-metallic standard; many states of Central and South America and in the Far East used silver as their principal means of payment; while the Russian and Austro-Hungarian empires had long periods of inconvertible paper. The general movement to gold came only after 1870; Germany, Holland, France, Switzerland, Belgium, and the Scandinavian states all adopted gold as their sole standard between 1870 and 1878. The United States formally abandoned bi-metallism in 1893, though gold had been predominant for some years previously. Austria adopted gold in 1892, Japan in 1897, and Russia in 1899; by 1900 only China and a few small South American states remained on a silver standard.

The nineteenth century also brought great changes in the international position of Britain and in the organization of international payments. The occupation of Amsterdam by the French ended its predominance and, for a time, it was replaced by Hamburg. Very soon after the end of the war, however, London emerged as the leading centre, followed closely by Paris, and the lead of London increased throughout the century. With the progress of industry and the growth of large industrial towns, Britain became the world's leading exporter of manufactured goods and the main importer of food and raw materials; organized markets grew up in London for many of these commodities, as well as for shipping to carry them and insurance to

cover the risks of transport. This commercial pre-eminence provided the basis for London's growth as a centre for international payments and on this base the discount houses and the merchant banks built up the necessary organization.

The discount market, as shown in Chapter 6, originally dealt in inland bills which were discounted for their customers by country banks and then re-discounted in London. The country banks judged the credit-worthiness of their customers and the banks' endorsements were a guarantee to the discount house; in this way a firm like Gurneys could discount, with complete confidence, bills on Midland or North Country manufacturers who might be quite unknown to them. At the beginning of the nineteenth century, there were no similar facilities for overseas bills; the country banks did not normally handle them and, apart from a few leading names, London bankers and bill brokers had little knowledge of the standing of firms in foreign trade.

This defect was remedied by the growth of another of the many-sided activities of the nineteenth-century merchant banker, the acceptance business. Firms who were well known in London and who could discount their own bills without difficulty, began to 'accept' bills on behalf of others. The customer who opened an acceptance credit was obliged, of course, to provide funds to pay his bills on maturity, and was charged a small commission. In return for this, the merchant bank assumed liability for the payment of the bills which it accepted, even though its customers might fail in their obligation to provide funds. The merchant banks thus undertook the responsibility of selecting credit-worthy customers and their acceptance of a bill was a guarantee to the discount market. The firms who undertook this business were those whom we have already met in the last chapter as issuers of foreign loans. They were also among the principal dealers in foreign exchange; some of them dealt also in bullion and, during the second half of the nineteenth century, they came increasingly to hold money on deposit for overseas clients.

The merchant banks began to perform these functions early in the nineteenth century and, by 1832, Nathan Rothschild could say, 'This country in general is the Bank for the whole world... all transactions in India, in China, in Germany, in the

whole world are guided here and settled through this country.'[1] The scale of business was, however, still small compared to what it became after 1870. Up to that time London, though the largest single centre, shared the world's international business with Paris, Amsterdam, and Hamburg. During the Franco-Prussian War and the period of monetary disorganization which followed it, much of the French business came to London never to return and, from then until 1914, London's supremacy was unchallenged.

Though the merchant banks occupied a central position in the mechanism of international credit and payments, they were not the only operators; many foreign banks established offices in London; British banks (such as the Bank of London and South America and the Hong Kong & Shanghai Banking Corporation) were formed with headquarters in London but most of their business overseas; and by 1914 the great joint-stock banks that had emerged as a result of amalgamations were beginning to transact foreign business.

The traditional method of making payments abroad was, as we have seen, the purchase of bills payable in a foreign currency, and dealings in these foreign bills continued throughout the nineteenth century. Merchants and merchant bankers met twice a week at the Royal Exchange and the rates which emerged from their dealings were regularly published under the title of 'the course of exchange'. British exporters, who had formerly consigned goods to overseas agents for sale in foreign currencies, came increasingly to despatch against foreign orders and to invoice in sterling. Foreign exporters to Britain, on the other hand, were often quite happy to accept payment in sterling, knowing that they could easily convert it into gold or into any other currency they might desire. As London's predominance in international payments increased, the process was carried a stage further, with exporters from one foreign country to another accepting payment in sterling and drawing bills on their customers payable in London, and these bills, too, were often accepted by merchant bankers and discounted in the London market. Finally, bills on London came to change hands as means of payment in

1. 'Evidence to Select Committee on the Bank Charter', quoted W. T. C. King, *History of the London Discount Market*, London, 1936, p. 264.

international transactions, as inland bills had formerly done in domestic transactions, and David Lloyd George (who was Chancellor of the Exchequer in 1914) was able to write, 'The crackle of a bill on London with the signature of one of the great accepting houses was as good as the ring of gold in any port throughout the civilized world.'[1]

The bill on London was the main instrument of international payments at the end of the nineteenth century but it was already being challenged, and has since been largely replaced, by other methods. Banks with branches both in London and abroad would accept a payment in sterling and pay out a corresponding amount in a foreign currency from their overseas funds. Other banks had foreign correspondents with whom they kept balances and enjoyed overdraft facilities, and these would instruct their correspondents to make payments (against those which they received in sterling) either by mail or, later, by cable, and this was the beginning of the modern telegraphic transfer.

Under the international gold standard there was thus the same distinction as in a domestic monetary system between money as a means of payment and money as a standard of value. Gold was the common standard of value both internally and between international currencies; as an internal means of payment, gold circulated alongside coins of other metals, notes, and bank deposits, and the relative importance of the different media varied widely from one country to another. In international payments, gold was the ultimate means of settling balances which could not be adjusted in any other way, but the vast majority of payments were made either by the purchase and sale of bills payable in foreign currencies, by the transfer of bills payable in sterling, or simply by the transfer of credits in the books of banks.

The international gold standard has been the subject of so much controversy during the past fifty years and has so strongly influenced later developments that it may be worthwhile pausing to look further at its essential features. It was related, more closely than any international system before or since, to the supremacy of a single centre. London was not only the main

1. D. Lloyd George, *War Memoirs*, Nicholson and Watson, 1933, vol. 1, p. 62.

centre of commo' .y de..iings and for international payments, but it also provided the largest and most free market for bullion and the principal world markets for both short-term and long-term credit.

The fact that national currencies were convertible into gold kept their values very stable in relation to one another, and exchange rates were confined within the narrow limits set by gold import and export points. If an unbalance between supply and demand in the foreign-exchange market tended to push rates beyond these limits, balance was restored by the movement of gold.

Countries using a paper currency imposed some kind of regulation on its issue. In Britain, after 1844, this took the form of the fixed fiduciary issue described in Chapter 1. Most other countries preferred to fix a minimum proportionate reserve ratio. In either case, however, there was a link between the movement of gold and the domestic supply of legal tender money; an influx of gold increased the domestic money supply and vice versa.

It was widely believed that these features of the gold standard provided a semi-automatic mechanism for the regulation of international prices. The reasoning behind this belief, in a simple form, would run as follows. If prices in one country were 'too high' in relation to the rest of the world, that country's exports would fall and its imports would rise; this would create an excess demand for foreign currencies and the cost of buying these currencies on the exchange market would rise to the point where it was cheaper to export gold; the export of gold would reduce the domestic supply of legal tender money; and this contraction in the supply of legal tender money would produce a general tightening of credit, a reduction in the demand for commodities, and a fall in prices. A country where prices fell unduly low would experien... reverse of this process, and sc prices between different coun... ... kept in line.

A process of this kind was doubtles... ...ion, though th' description is so over-simplified as to be almos... caricature. In this context it is not prices in general but the costs of production of goods and services entering into international trade that are relevant. Supply and demand for currencies in the foreign-exchange market are influenced not merely by payments for

imports and exports but by all payments, including those arising from borrowing and lending. Often a current-account balance in one direction was offset by an opposite one on capital account, and it was one of the great virtues of the system that a temporary surplus or deficit on current account could be offset by short-term lending or borrowing, rather than by a movement of gold.

When gold did move, it was only in Britain that the movement produced an immediate and equal change in the supply of legal tender money. In countries which had a minimum reserve requirement, the note-issuing authority could, and sometimes did, 'sterilize' gold movements by accumulating a reserve in excess of legal requirements and meeting demands for export, when they came, out of this excess. Even in Britain, the Bank of England could produce a similar effect by varying the reserve of the Banking Department. Again, a change in the volume of legal tender money did not always produce a similar change in bank credit, for banks could, and did, allow considerable variations in their cash ratio. Finally, as will be shown in Chapter 8, the relationship between the volume of money and the price level is very complex.

In spite of these qualifications, however, the gold standard and the financial institutions that went with it did provide a means by which very large payments could be made smoothly and with a very small reserve of gold; it kept the production costs of internationally traded goods roughly in line between different countries and it maintained a constancy of exchange rates which greatly helped both the movement of goods and the movement of capital. On the other hand, it did not, even in its heyday, prevent fluctuations either in the general level of world prices or in employment. Unemployment among trade unionists (the only figures available) showed strong cyclical fluctuations, varying from about 2 per cent in time of boom to 10 per cent in the depth of a depression. Prices also rose and fell with the cycle and, in addition, there were strongly marked trends extending over periods of twenty to thirty years. Wholesale prices in Britain rose by about 35 per cent between 1850 and 1873; fell by 40 per cent from the mid seventies to the mid nineties; and had then risen by some 25 per cent by 1914.

The outbreak of war in 1914 shattered the delicate mechanism

of international payments. Of the belligerent countries, only the United States was able to maintain the convertibility of its currency on pre-war terms; all the others either abandoned the gold standard entirely or imposed restrictions which destroyed its essential features. In Britain, gold disappeared from circulation, to be replaced by Treasury notes. The government raised large sums in America by borrowing and by selling British-owned securities, and the dollar exchange rate was 'pegged' at about 2 per cent below mint par by official sales of dollars. The export of gold was still legal, but private transactions were ruled out by the risk of German submarines. In 1919, when the war risk had ceased, gold exports were prohibited, the exchange peg was removed, and rates were left to fluctuate with variations in supply and demand. The war brought inflation everywhere, even to neutral countries, but it was far more severe in some countries than in others, so that the relative purchasing power of post-war currencies was very different from their pre-war parities.

There was, however, a general desire for a return to the gold standard, and this was achieved in Britain in 1925. The prohibition of gold exports was removed; the Bank of England was required to buy gold at £3 17s. 9d. a standard ounce and to sell it at £3 17s. 10½d. (the old mint price); and the principle of the fixed fiduciary issue was retained. Thus, though notes were not convertible and gold no longer circulated, the essential features of the old mechanism were restored. The German currency had already been stabilized after a disastrous inflation; Britain was accompanied in her return to gold by the Commonwealth countries, Hungary, and the Netherlands, and most other European countries followed within the next two years.

By the end of 1927 nearly all the countries which had been on the gold standard in 1914 had returned to it, but several conditions which had made for the success of the old system were absent in the new. The settlement of war debts and reparations involved large international payments unrelated to ordinary commercial transactions. The war had impaired London's international supremacy and hastened the rise of New York as an important financial centre. The Bank of England and the Federal Reserve Bank of New York did their best to cooperate but there

were times (e.g. the rapid rise of American interest rates during the boom which preceded the great Wall Street crash of 1929) when events in one centre caused acute difficulty in the other.

Before the war, Britain held large short-term funds on foreign account, but the credits extended by the discount of foreign bills in London were considerably larger. The war wiped out this short-term creditor position, and also seriously weakened the British balance of payments. Large long-term loans continued to be raised for foreign countries in London; these could no longer be met wholly by current earnings and the balance had to be covered by short-term borrowing. By the end of 1928 Britain was a net debtor on short-term capital account by over £300 million, and it was the withdrawal of part of these funds which finally led to the suspension of the gold standard in 1931.

The value of the pound was fixed rather high in relation to British costs of production, and that of the franc was placed unduly low. This created difficulties for British exporters, while enabling France to accumulate a large amount of gold, and the maldistribution of the world's gold stocks, which had begun during the war, was enhanced.

An even greater source of trouble was the severity of economic crises and the high level of unemployment. The depressions of the early 1920s and 1930s were far more severe than any in the nineteenth century. The industry of Britain and some other countries had also to face structural changes resulting from the war and from technological development. For example, the cotton industry had to meet greatly increased competition from India and Japan; the coal industry suffered from the use of oil in shipping, and from fuel-saving technical developments in the gas and electricity industries as well as from foreign competition; while the war had over-stimulated the iron and steel industry everywhere and left excess capacity in all the major producing countries. Even in the 'prosperous' year of 1929 there were over 1,000,000 unemployed in Britain. In the nineteenth century the Bank of England did not hesitate to check an outflow of gold by raising Bank rate and restricting credit. It was recognized that this process also tended to check economic activity at home, but, since the outflow of gold usually occurred when business activity was booming, there was no serious conflict between

maintaining the gold stock and maintaining domestic stability. Between 1925 and 1931, this conflict was chronic and in 1931 it became acute.

The depression which had begun at the end of 1929 had become very severe and, by contrast with the usual experience of the nineteenth century, it was accompanied by a deficit in the balance of payments. Among its other effects, the depression reduced the yield of taxes and raised the cost of unemployment benefit, and so the Labour Government failed to balance its budget. Today, a budget deficit during an acute depression would be regarded as natural and desirable but in 1931 it aroused fears of inflation and impaired confidence in the pound.[1] Confidence was further shaken by a banking crisis in Austria and Germany and by rumours of unrest in the British navy, and foreign holders of short-term funds in London began to withdraw them on a massive scale. The government and the Bank of England negotiated big short-term credits in Paris and New York, but it was not possible to borrow enough to stem the ouflow of gold. In these circumstances there were only two alternatives. Either the Bank rate had to be raised drastically (perhaps to 8 per cent or 10 per cent as in some nineteenth-century crises) to keep short-term funds in London, or gold payments had to be suspended. A very high Bank rate is tolerable, though disagreeable, when trade is active and employment high; with two million unemployed, it would have been quite intolerable, and so, in September 1931, Britain left the gold standard.

The abandonment of the gold standard was followed in 1932 by the setting up of the Exchange Equalization Account. Originally the object of the Account was not to maintain a fixed value of sterling in the foreign-exchange market, but to combat speculation and to resist changes which the authorities regarded as undesirable. This it did, by entering the market as a seller of sterling when it was desired to check a rise and as a seller of gold or foreign currencies when it was desired to check a fall. The Account is managed by the Bank of England as agent for the government, but it is a Treasury account entirely separate from the ordinary accounts of the Bank. The effect of the suspension

1. See p. 219.

of gold payments and the setting up of the Account was, as shown in Chapter 1, to break completely the link between gold movements and the supply of legal-tender money. Since 1939 almost the entire gold stock of the country has been held in the Account and official transactions in the foreign-exchange market have been conducted entirely through it.

When Britain left the gold standard, other countries had a choice between keeping their own currencies stable in terms of gold, of sterling, or of some other major currency, or leaving them entirely 'free'. A number of Commonwealth countries and some others with close commercial ties to Britain chose to link the value of their currencies to that of sterling, and this was the beginning of what has come to be called the 'sterling area'.

In spite of this group of stable rates, and of some attempts at cooperation between Britain, France, and the United States, the period from 1931 to 1939 was one of great confusion in international payments: exchange rates fluctuated widely; some countries deliberately devalued their currencies in the hope of cheapening their exports and so alleviating domestic unemployment; others imposed controls on foreign payments and concluded bilateral agreements, balancing their transactions with each country separately. The volume of international trade was greatly reduced and the normal flow of capital for commercial purposes almost dried up. Such international capital movements as still took place were mainly transfers of 'hot money' motivated by political fears or expected changes in exchange rates and unsettling rather than helping to stabilize the exchanges.

During the Second World War nearly all the belligerent countries imposed very stringent controls over international payments, confining transactions to licensed dealers who were allowed to make payments only against official permits. One consequence of this was the more formal constitution of the 'sterling area'. The countries within the 'area' continued to allow freedom for transactions between one another and all imposed similar controls on payments to countries outside. Earnings of outside currencies were pooled and each country could draw on the pool according to need. Britain, with the heaviest war expenditure, was the largest drawer, and the sterling equivalent of such drawings was credited to the countries concerned, in

London. Similar credits were given in return for local currencies supplied to cover British expenditure in sterling-area countries and these formed the 'sterling balances' which have been an important feature of the post-war system.

Quite early in the war, officials of the Allied governments began thinking about post-war international payments. The gold standard had been discredited; it was generally believed to be too rigid and to have been at least partly responsible for the severity of the depression which followed the 1929 Wall Street crash. On the other hand, the experience of the 1930s had shown the chaos into which a system of free exchange rates could easily fall. What seemed to be needed was a compromise which would combine a high degree of stability with the opportunity for orderly change.

Experts of the British, United States, and Canadian governments each drew up plans, and these were discussed at the Bretton Woods conference of 1944. The conference agreed to the creation of two new international bodies: the International Bank for Reconstruction and Development (often called the World Bank) to supply long-term capital, and the International Monetary Fund to regulate and assist in the mechanism of international payments.

Members of the Fund agreed to declare a par value for their currency in gold or in U.S. dollars of a stated gold content (which comes to the same thing); to maintain market exchange rates within 1 per cent of this parity, either by operations in the market or by undertaking to buy and sell gold at a fixed price; not to change their par values except in accordance with procedures laid down in the agreement and in order to correct a 'fundamental disequilibrium' in their balance of payments (though this phrase was not defined); and to permit, after a transitional period, unrestricted exchange dealings for current-account purposes though not necessarily for capital transactions.

Each member was allotted a quota, payable partly in gold and partly in its own currency and received drawing rights equal to its quota plus the amount of its gold subscription. Quotas were increased by 50 per cent in 1959, and by a further 25 per cent in 1966, and Britain now has a quota of £2,440 million and maximum drawing rights of over £3,000 million. Any member

country which has a temporary deficit in its balance of payments, and whose reserves are being depleted, can protect them by drawing foreign currencies, through its Central Bank or Exchange Account, from the Fund. The Fund now has 111 member countries, including all the major trading nations except Communist China, the countries of the Soviet bloc, and Switzerland.

The transitional period proved much longer than had originally been expected, but exchange controls were gradually relaxed and since the end of 1958 most of the leading commercial currencies have been freely convertible for current-account purposes, though some restrictions on capital transfers still remain. Sterling still retains much of its nineteenth-century pre-eminence as an international means of payment, and between a quarter and a third of world trade is invoiced in sterling and paid for by a simple transfer of sterling from one bank account to another. Some other currencies, including the U.S. dollar and the French, Swiss, and Belgian francs, are also used for international payments in a similar way, though on a much smaller scale. For other transactions, the making of a payment abroad involves the purchase of a foreign currency. The British market in foreign currencies is still largely in the hands of the merchant banks and overseas banks with offices in London, though the clearing banks have been playing an increasing part. Dealings still take place in foreign bills, as they did in the nineteenth century, but a much larger volume of business is now done by telegraphic transfer.

The rate of exchange between any two currencies is determined by supply and demand, but within limits imposed by the obliga- tions undertaken by members of the International Monet[illegible] Fund. To take the sterling-dollar rate as an example, parity has (since 1967) been $2.40 to £1, and the articles of the Fund require the two governments to confine fluctuations in their respective markets to within 1 per cent of parity, i.e. between $2.376 and $2.424. In fact, the Exchange Equalization Account works on the slightly narrower limits of $2.38 and $2.42. The Account has discretion, which it often uses, to buy and sell at rates within these limits, but if the rate falls to $2.38 it must sell dollars at that rate in whatever quantity is necessary to prevent it falling any lower. Similarly if the rate rises to $2.82 the Account must buy dollars and sell sterling on whatever scale is

needed to prevent any further rise. Thus, these limits have taken the place of gold import and gold export points. Under the gold standard an adverse balance of payments led to a withdrawal of gold from the Bank of England; now it leads to a sale of gold or of foreign currencies by the Exchange Account.

The world stock of monetary gold has not kept pace with the growth in the volume of international trade and the rise in prices. Rising costs have reduced the profitability of gold production, and substantial amounts have gone into industrial uses and into hoards. Total holdings of official monetary institutions in the non-communist world were $23,743 million in 1936 and reached a peak of only $43,230 million in 1965; thereafter absorption by industry and by hoarders exceeded new output, and the monetary stock had fallen to only $40,515 million in June 1968. At the end of the Second World War, about two-thirds of the world's monetary gold was held by the United States, but in recent years that country has exported considerable amounts. In September 1968 the United States held $10,755 million, and other major holders were Germany ($4,456 million), France ($4,166 million) and Switzerland ($2,628 million). The United Kingdom held $1,486 million.

The British Exchange Account holds rather more than half of its reserve in gold. Many countries, however, hold most of their reserves not in gold but in short-term assets payable in foreign currencies. The two currencies mainly held as reserves are the pound and the dollar. In September 1968 United Kingdom short-term liabilities in sterling (excluding transactions with the International Monetary Fund) were £5,271 million, against assets of only £1,548 million. More than half these overseas claims on London are held by overseas countries and about two-thirds are in the hands of central monetary institutions. United States short-term dollar liabilities have reached more than $33,000 million, of which nearly $23,000 million are held by countries of Western Europe, and nearly $6,000 million in Latin America.

Official reserves have been supplemented by 'swap' arrangements, whereby central banks agree to hold one another's currencies, and special credits have been arranged to support the pound and the French franc in periods of crisis. A more general extension of the credit facilities of the International Monetary

Fund (known as Special Drawing Rights) was negotiated in 1968 and awaited ratification at the time of writing. Greater flexibility has also been introduced by the conduct of a large amount of international borrowing and lending in a way which does not involve a foreign exchange transaction. The currency most widely used is the dollar, and transactions take place mainly in European financial centres, of which London is much the most important; hence the market for this type of transaction is generally called the 'Euro-dollar' market. Holders of dollars who are willing to lend, deposit them with a European bank, which then lends them either to an ultimate borrower or to another bank. Since loans are generally made and repaid in the same currency as deposits, there is no need of an exchange transaction. The balances involved are in ordinary commercial banks, so that their movement from country to country has no effect on official reserves.

The new compromise has some obvious points of similarity with the gold standard, but also some fundamental differences. The flow of gold no longer has any significant influence on the supply of legal tender currencies; in most countries the legal link has been broken and, where it has been maintained, it has long been ineffective. Gold no longer serves as a standard of value for commodities, and world commodity prices have risen in terms of gold by nearly three times in the past thirty years. The gold standard did not, as we have seen, maintain anything like perfectly stable prices but fluctuations of this magnitude would have been quite impossible. On the other hand, gold still serves as a link between the values of the currencies of members of the International Monetary Fund though the declaration of par values in gold is only a convention; the countries concerned could very well establish, and agree to maintain, a set of exchange rates without mentioning gold at all.

More important, however, gold is still the only universally accepted means of payment and the ultimate medium for settling international transactions. Only a small part of international payments are actually settled in gold; the vast majority are settled by transfers of internationally accepted currencies such as sterling, or by dealings in the foreign-exchange market; some may be settled with the aid of currencies provided by drawings on the International Monetary Fund; but balances which cannot

be met in any of these ways must ultimately be settled in gold. Finally, because of its position, as the ultimate means of payment, gold is also the ultimate reserve of international purchasing power; though many countries hold the bulk of their reserves in pounds or dollars they do so because they are confident that they can exchange these currencies for gold if they so desire.

In many ways the post-war system has worked remarkably well. Changes in par values have not been numerous and, when they have occurred, they have usually caused little disturbance. The volume of international trade has recovered from the ravages of depression and war, and is far greater now than it has ever been. International capital movements are again taking place on a large scale, though many of them are either official transactions or direct investment by companies operating abroad. The resources of the Fund have been used irregularly, but it has given very valuable help to a number of countries, including Britain.

In spite of this good record, there is still widespread uneasiness about the system. Gold output has not kept pace with rising prices; the purchasing power of the world's gold reserve has been drastically reduced; and this has been only partially offset by the practice of holding reserves in sterling or dollars, and by the additional reserves provided by the Fund. Moreover, both Britain and the United States are worried about their balance of payments and the size of their gold reserve in relation to their foreign liabilities. In the United States, with its very large gold stock, this problem is comparatively recent; in Britain it has existed ever since the war, and on several occasions the need to protect the reserve has led to policies which have checked domestic economic growth. The root of all these difficulties is, of course, in the chronic tendency to inflation in the post-war world. In the inter-war period the stability of the international monetary system was wrecked by trade depression and unemployment; in the post-war period it has been threatened, though so far no more than threatened, by the opposite evil of inflation. A fully satisfactory international system depends on individual countries solving their domestic monetary problems, and keeping clear both of inflation and depression.

Chapter Two

The Monetary Institutions

The Banking System

In the capitalist economy, **credit** plays an axial role in the different domains of economic life. The word credit comes from the latin word "credo" meaning "I trust". In the economic activity, **credit means lending money.** Moneylenders **trust** borrowers to pay them back. Credit enables people to obtain goods and services even if they do not have enough money to pay them **right now.** The buyer is making the purchase on credit. For example, a person who cannot **immediately** pay the full price of a machine to use in production or a house to live in, may make the purchase on credit. A person who needs money for any social purpose, can borrow money for a certain time. At the due date of repayment, called **the maturity date**, he is to repay the sum borrowed plus a certain monetary return, called **interest**.

In the domain of production, the firm can obtain credit for the construction of its productive unit, that is, for the building up of its "fixed capital". For the utilisation of its

productive capacity, it can obtain credit to buy its raw materials, pay its wage bill ... etc. The producer himself can advance credit to the merchant in giving him the possibility to pay the price of his purchases at a date posterior to that of goods delivery. The merchant can make recourse to a moneylender to cover some of his money capital necessary for his commercial transactions. On the other hand, a merchant can give credit to his customers buying consumption goods.

If credit is advanced in the domain of business, the money put is supposed to act as a **money capital** to procure either the "fixed capital" or the "circulating capital" in the different domains of business activities.

On this basis, the distinction could be made between four major types of credit: investment, production, commercial and consumer.

Investment credit is a loan payed back over a period as long as 10 to 30 years or even more. Businesses use investment credit to undertake a major project, such as the construction of a factory or a farm. This kind of loan is called **long-term credit.**

Production and commercial credit is used by productive firms and merchants to insure the functioning or the development of their business. They expect to repay the loans from their increased profit. Most of these loans are repaid with six months and so called **short-term credit.** **Consumer credit** enables customers to spend more money than they have at the time. They are spending now some of their future income. The actual price of the commodity will be majored by a sum representing the price of credit, the interest. An important kind of consumer credit is a hire purchase agreement. Payments in such case are made over a stripulated period of time and, in most cases, include interest. Within the investment and production credit, distinction can be made, according to the branch of activity between industrial and agricultural, ... credit.

From the **legal viewpoint,** the terms of a loan are set forth in a **loan contract**. These terms include **interest, maturity** and **security.** Interest is paid by the borrower to the lender. It serves as the compensation for giving up the use of money for a certain time. Maturity is the date by which the loan must be completely pepaid. Security is something of

value that a borrower pledges to the lender in case the loan is not repaid as promised. For example, the title of a house is the security on a home mortgage.

The **demand** for credit (for money to be borrowed) can come, then, either from the productive and commercial units (be it private or public) or from the households (acting as consumers).

On the other side, we have certain monetary institutions, mainly in the form of capitalist enterprises, trading in money: creating means of payments and gathering, through one way or another, other peoples monetary savings. These institutions act as major money lenders: finances companies, insurance firms, credit unions, building scocities and banks. For the last ones, advancing credit is, as we have already seen, the occasion of the creation of further means of payment, the scriptural money, which became the most circulating kind of money in the contemporary capitalist economy. These institutions, and especially banks, are the suppliers of credit.

With the demand for credit and its supply, the capitalist economy, as a market economy, characterises itself

by the emergence of a specific market, **the monetary market** as a dominant phenomenon. On this market, banks emerge and develop to become gigantic traders in credit which became a major element in the monetary circulation during the different phases of the cycle of social capital as an intermediary of the cycle of social production.

In this chapter, we will be discussing banks as capitalist monetary institutions.

- Banking was known in ancient exchange economies, mainly for serving their external trade. The ancient Romans developed a banking system to serve their vast trade network, spread throughout Europe, Asia and most of Africa. But, it was natural that it disappears with the shrinking of the exchange economy and trade and the domination of subsistence economy as it occurred in Europe with the fall of the Roman Empire in the late 400's.

- At a later stage, with the disintegration of the feudal economy and the rise of the capitalist economy in its becoming an exchange economy, modern banking began to develop between the 1200's and the 1600's in Italy. The

word bank comes from the Italian word "banco" or "banca", meaning "bench". Early Italian bankers conducted their business on benches in the street. Large banking firms were established in Florence, Rome, Venice and other Italian cities, and banking activities slowly spread through Europe, especially in Holland, England and Sweden.

- By the end of the 17th century, the process of the formation and development of the banking <u>system</u> is accelerated, especially with the industrial revolution in Britain, whose banking system gradually takes form during the stage of competitive capitalism, to develop, under an oligopolistic form at the stage of monopolistic capitalism, by the end of the 19th centuy.

- The way the British banking system was built up became the model for many countries during the 19th century and the begining of the 20th century. The system was composed of:

- a number of **"commercial banks"**, specialised, at least formally, in short-term credit for commercial and industrial current activities,
- a limited number of very specialised banks for specific

economic sectors: agricultural banks, land banks ....

A big bank becoming, through time, the top of the banking system, a **central bank.**

Through practice, are crystallised the main **banking operations:** the different banks issue their banknotes (paper money) until it became the monopoly of one bank authorised by the state to do so. – the acceptance of deposits and the discount of bills of exchange and the keenness to circulate them – with the biggest bank looking after the operations relative to public finance, that is the state's financial activity, covering its revenues and expenditures.

Through these operations, and others, the banking system **plays a crucial role** in the transformation of the national economy, in general, and in its industrial transformation, in particular, in satisfying the different monetary needs of such transformation, such needs being internal or having to do with the international economy. This role could be summarised as follows:

- Owing to the inelasticity of the supply of precious metals, one of the functions of the banking system was to supply the national economy with quantities of means of payment to face the continuously expanding demand for money accompanying the process of industrialisation; a process whose realisation accelerates the transformation of the

economy into a monetary commodity economy. In such economy, the growth of production and transactions volume would be restricted in the absence of an increase in the volume of means of payment. To avoid that, the banks provide the process of circulation with kinds of money other than the metallic one: paper money and deposit money, the latter becoming, gradually the most important of all kinds of money. In 1750, deposit money was the least important among the means of payment. With the restriction, by the state, on issuing banknotes starting from the 20^{S} of the 19th century, deposit money became, by the middle of this century, the most important componant of money supply. In 1865, it dominants the supply of money replacing the metallic money and the paper money: with the increase of the demand for money, provoked by the expansion of commodity production and transactions, the supply of money increases through changes in the structure of the money supply, by increasing the relative importance of deposit money at the expense of metallic money and paper money: **The banking system recuperates its control over the creation of money in the capitalist economy.**

- This role represents, if looked at from the view point of the **material** economic activity, a sort of providing such activity with the **money capital,** or at least a part of it,

necessary for the realisation of such activity. This takes place with banks advancing **credit** to the owners of the enterprises, especially in commerce and industry, under different forms:

- Through **short-term credit** given by the banks to commercial and industrial enterprises to be used **as circulating capital** (to buy the current inputs of production) with the commodities, produced or in transit, to be given as a pledge. This sort of credit furnishes the enterprises with the **money capital necessary for their operation**. It supposes that the enterprise is already existing.
- Through **short-term credit,** banks contributed, indirectly, to industrial expansion, i.e., to the creation of industrial productive capacity (to industrial investment) – to explain this we must recall that the percentage of circulating capital to fixed capital is high in many industrial units. These, with the high rate of profits which successful industrial firms were reapding, these firms were devoting a big part of this profit to the expansion, more or less regularly, of the enterprise (that is, reivesting this part of profit). This takes place, usually, through the expansion of **fixed capital** The circulating capital necessary for the utilisation of the new productive capacity could be secured by the firm through a demand for bank short –

term credit. So, instead of dividing its accumulated profit between fixed capital and circulating capital, the firm keeps the biggest possible part for the expansion of fixed capital recoursing to the bank to borrow the necessary money for its circulating capital. This shows that the short term credit given by the bank contributes, indirectly, to the industrial expansion even when a part of this credit is not destined to a direct long run investment creating fixed capital for the enterprise.

- On the other hand, during the industrial revolution, banks were advancing long-term credit in considerable amounts to the industrial enterprises against pledges of stocks, bonds or personal security. In this respect, the distinction could be made between three types of credit: short-run credit with a beforehand agreement to prolong the duration of the loan as long as the borrower needs the money and the lender does not need it. By the end, the loan becomes, practicaly, a long-run loan. This practice represented the most important way of giving firms "long-run" credit. To this we can add the short-run loans which the debtor cannot repay in due time with the creditor being obliged to renew the loan. Thirdly, there were the long-run credit given against real or personal securities.
- Finally, banks were participating directly to industrial projects, either through the efforts of the men of industry

who are bankers at the same time (creating money to face their current industrial costs, accepting and creating deposits), or through the ownership of an industrial unit and a bank by the same family. On the other hand, bankers were owning shares in industrial firms, a matter which facilitates the obtention of credit by such firms.

- Towards the end of the 19th century, the banking system witnesses a process of development through which three main tendencies manifest themselves:
- The tendency towards a more diversified structure, according to different criteria: from the viewpoint of the type of banking activity itself [short term credit banks (mainly commercial banks) and long term credit banks (investment banks)]; from the viewpoint of the ownership of the bank's capital (private national banks, state banks, mixed banks, national and with foreign capital); from the viewpoint of the economic activity served by the bank [agricultural, industrial (business banks and banks of industrial development) and construction; from the viewpoint of the spatial scope of the bank's activity (Local, national, national having some international activity, transnational]; finally, from the viewpoint of role played by the bank (banks representing the base of the banking system dealing mainly with the public, financing all sorts of economic activity and advancing all sorts of

credit, and a central bank which mopnolisies the issue of banknotes, looks after the national currency, acts as the governments bank and as the bank of banks.

- the tendency towards capital centralisation within the banking system. The monetary market is monopolised by of few number of big banks, giving an oligopolistic form of market, within the national economies and on an international level. Lately, the international monetary market will be dominated by a certain number of transnational banks.
- the tendency of the banking capital to get unified with industrial and commercial capital: the circles of industrial, commercial and banking capitals, which were separated, tend to unify under the joint management of a **high finance,** in which the masters of industry and bank are unified in one personally intimate association. This association is based on the elimination of competition between individual capitals through big capitalist acts of integration. This imples, of course, a change in the relation between the capitalists and the state power.
- **Commercial banks:** a commercial bank is a capitalist enterprise, aiming at monetary profit, taking the legal form of a joint-stock company, dealing with money (creation, borrowing and lending)
- Commercial banks carry out a multitude of **banking**

operations: receiving deposits (demand deposits and time deposits) – lending money (lending conditions: interest, maturity, security, credit ceiling … etc) – current account operation – discount of bills of exchange – depositing money in other banks – dealing with stocks and bonds – participating in the capital of new enterprises – trading in foreign exchange – trading in precious metals – financing international trade (especially through the documentary credit) – managing the financial portfolios of customers – acting as a broker in the stock of exchange – financing some new operations relative to the transfer of technology, the hiring of a means of production (through a asing contract), the purchase or the utilization of certain intellectual property right.

A commercial bank activity during the year is grasped through a thorough study of its **budget.**

The central bank is the bank at the top of the banking system: issuing the banknotes, controling the credit system, acting as the state bank and as the bank of banks (lending them, rediscounting bills of exchange in their interest, determines the percentage of the reseve cash – carries out the act of clearing between the banks – can affect their credit policy through the open market operations

- The recent trends in central banking (especially after the

structural economic crisis of the 1970's).

- The structure of the banking system in Egypt, in Lebanon, in Syria and at the level of the international banking system.
- Now, armed with a balanced definition of money and the monetary institutions, especially the banking system, we can proceed to see whether this world of money and finance affects the working of the capitalist economy, and, if it does, how and in what direction.

Selected Readings

for

Chapter Two

The Banking System

- The banking system, history, commercial banks and their operations - Central banking.
- Money, credit and finance.
- Finance capital and financial groups under monopoly capitalism.
- Transnationalisation of banks and global banking.

AN OUTLINE OF MONEY

by
GEOFFREY CROWTHER
Editor of *The Economist*

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LONDON EDINBURGH PARIS MELBOURNE
TORONTO AND NEW YORK

Chapter II

THE BANKS

THE NATURE OF A BANK

SOMETHING has already been said about the banks in the previous chapter. Indeed, it would be impossible to describe the nature of money in the modern world without bringing in the banks, since so high a proportion of the money now in use consists of their IOU's. But we must now go back and examine more closely these institutions which have gradually displaced the mints as the providers of the community's money and the axis of its monetary system. Having, in the first chapter of our story, introduced the hero (or villain—the gradual unfolding of the plot will show which) and described one or two of his actions, we must now give his genealogy and a brief outline of his character.

The present-day banker has three ancestors of particular note. One we have already met: the merchant, whose high and widespread reputation, or credit, enables him to issue documents which will be taken all over the known world as titles to money. To this day the title of 'merchant banker' is reserved by usage to the older, cosmopolitan and more exclusive private banking firms, nearly every one of which can trace its ancestry back to a trader in commodities more tangible (though hardly more profitable) than money.

The banker's two other ancestors are the money-

lender and the goldsmith. Lending and borrowing are almost as old as money itself, and the village money-lender is found even in quite primitive communities. He is not usually regarded as a very lovely object; usurer is one of the very oldest terms of abuse. But the services he performs are undoubtedly useful and necessary, even though the reward he exacts in return may usually be rapacious. Even if incomes were equal, there would still be some individuals with an excess of money and others with a shortage. And since incomes never have been equal, the need for some means of transferring capital from one individual to another is increased. The money-lender works, of course, with his own capital. But if there are any other members of the community with money to spare, it will be quite natural for them to entrust it to the money-lender for investment, in view of his skill and experience in the technique of exaction. As soon as the money-lender reaches this stage, he is an embryonic banker. He has become a money-borrower as well as a money-lender. At first, he may merely lend out his clients' money on commission, just as a present-day solicitor does. But it is obviously both more convenient for his clients and more profitable for him to borrow their money outright, paying interest on it and mingling it with his own capital, and then to lend out the whole lot, making his profit from the difference between the moderate rate of interest he pays to his lending clients and the high rate he charges to his borrowing clients.

Throughout the Middle Ages, the Church was very much exercised about the ethics of interest. Generally speaking, usury was condemned, but usury was not always taken to include the payment of moderate interest on loans. And in any case, disapproval by the Canon Law did not prevent the charging, or the payment, of

rates of interest which were truly enormous. Even to-day almost every state finds it necessary to have laws prescribing maximum rates of interest for petty money-lenders. Whether *any* rate of interest is morally justifiable or economically expedient is an interesting question which does not concern us in this book.

Every bank has a very great deal of the money-lender in its composition. It collects money from those who have it to spare or who are saving it out of their income, and it lends this money out to those who require it. This is a valuable and necessary function in any community. Indeed, as we shall see later in this book, it is a function of the most peculiarly vital importance if a complex modern economy is to work properly. Many institutions which call themselves banks perform no other function than this. A savings bank, for example, performs precisely this function, except that its funds are usually used to buy investments instead of making loans direct to individuals. A mortgage bank (what is known in Great Britain as a building society) is more exactly analogous, as its function consists entirely in collecting individual savings and lending them out to other individuals who wish to borrow for the purpose of building or purchasing a house. Even the large institutions which come most readily to mind when the word 'bank' is mentioned—the opulent institutions whose branches stand on every street-corner—spend a great deal of their time and energy in this business of collecting and disbursing savings.

If this were their only function, however, the chapter could stop here. But it is not. We have hitherto been talking of people who have money *to spare*—that is, money which they do not wish to keep on hand for the ordinary expenses of life and which might as well, therefore, be put out where it can earn some interest. But in

the present age the banks are concerned with far more than that. The ordinary bank depositor keeps all his money in the bank and makes his daily payments out of it. Moreover, the banks are not content with merely collecting other people's money and lending it out again. As we have seen in the last chapter, they play their part in 'creating' or 'manufacturing' the community's supply of money. A clear line can therefore be drawn between the bank (in the ordinary sense of the term) and those institutions which, whether they call themselves banks or not, are merely the present-day descendants of the money-lender. The IOU's of a savings bank or a building society do not circulate as money; those of a bank do. That is the vital distinction. Money, it has been said, has two properties. It is flat so that it can be piled up. But it is also round so that it can circulate. The progeny of the money-lender are concerned with flat money, piled-up money, savings. The progeny of the goldsmith are concerned with round money, circulating money, cash. The big modern banks perform both functions. We have already traced their descent on one side from the money-lender; we must now turn to their other ancestor, the goldsmith.

The goldsmith-ancestry of the modern bank is purely an English affair. Indeed, the bank as a provider of circulating money is almost entirely an English invention, which has not yet spread to every part of the civilized world. Part of every goldsmith's necessary stock-in-trade is a secure safe. Without it he could hardly stay in business. And a goldsmith, even to-day, will frequently oblige his customers by keeping their gold and silver plate in his safe. In a period when money consisted entirely of gold and silver, and forms of investment (except in land) were almost non-existent, private persons owned proportionately much more gold and silver than

they do at present. What more natural than to entrust it to the goldsmiths for safekeeping and to get a receipt? In London, the merchants of the City for many years kept their gold in the Tower of London. But when King Charles I., hard-pressed for money, seized the merchants' gold in the Tower in 1640, the goldsmiths naturally got the business to themselves. In the beginning this was pure safe-deposit business, and the deposit receipts were used only for the purpose of withdrawing the gold. But the stages of development into the full-blown bank were rapid and easy. First, the deposit-receipts began to be handed round as money. It was certainly more convenient to pay debts by handing over a slip of paper than to withdraw gold, hand it over, and then re-deposit it. So the deposit-receipt, once the goldsmith's name and reputation became well known, became the embryonic banknote. Second, even the deposit-receipt could be dispensed with. The goldsmith could merely be instructed by letter to transfer the ownership of such-and-such an amount of gold from the original depositor to his creditor. This is the birth of the cheque (the earliest cheque on a London goldsmith-banker which has been preserved to posterity is dated 1675). And finally, the goldsmith, now fully developed into banker, makes the discovery that he can safely issue deposit-receipts in excess of his gold stock. It is immaterial whether he does this by printing off more receipts and lending them to persons in need of accommodation (or indeed using them to pay his own household bills), or whether he does it by allowing his customers larger 'deposits' (on which they can draw by cheque) than the value of the gold they have deposited. In either case the crucial step has been taken. The principle of 'creation' of money has been discovered. At first, the goldsmith was doubtless cautious in his

'creation.' Then later, with growing confidence, he went too far. But gradually he accumulated experience about the proper proportion of actual gold to keep in reserve.

The present-day banker shows traces of each of his three ancestors. Like the merchant, he still makes a speciality of financing foreign trade, and has special methods, such as the issue of bills of exchange (which we shall shortly have to describe), for doing so. Like the money-lender he still collects the savings of one set of persons and lends them to another set. A large part of his deposits consist of so-called 'deposit accounts' or 'savings deposits' which cannot be drawn upon by cheque and can only be withdrawn by giving notice. These deposits are clearly not 'circulating money'; they are 'flat money' entrusted by its owners to the money-lender for placing. Both of these functions are important in their way. But the unique function of the banker, and the one which makes him important for this book, is the third, the provision of a convenient mechanism by which people can make payments to each other without having to walk round to each other's houses with bags of coin. And in providing this mechanism he also provides, or 'creates,' the money itself. He has discovered the secret, for which the mediæval alchemists strove, of manufacturing money. So at least it seems, though we must now examine more closely this apparently miraculous business of 'creation.'

THE 'CREATION' OF MONEY

Let us suppose that the ordinary borrower goes to his bank for a loan of £100. He convinces the banker

that he will be able to pay the interest and repay the principal and that the loan would be safe in his hands —and he gets the loan. What precisely happens next? The banker does not go to his safe and draw out £100 in gold and hand it over to the borrower. If the banker is permitted by the laws of his State to issue notes, he may make the loan by handing over 100 of his £1 notes straight from the printing press. But the most usual method of making a loan is merely to credit the account of the borrower with £100. The borrower may draw some of the £100 out in cash (for example, to pay wages), but he is more likely to spend it by cheque, in which case the £100 is withdrawn from his account but credited to somebody else's. The point to notice is that the loan is made by increasing the banker's debts (this is true whether the loan is taken in the form of notes or of a deposit). The banker has in return the borrower's promise to repay the loan, and he will also receive interest; but the granting of the loan has increased his debts. In the words of the old banking maxim, 'every loan creates a deposit.' The banker's debts (whether notes or deposits) serve, as we have seen, as money. As a result of the loan, therefore, an additional £100 of money has come into existence. When the loan is repaid, the borrower's account will be debited with £100, and the cancellation of the loan will thus remove £100 of money out of existence.

Making loans is not the only way in which deposits can be 'created.' If a banker buys £100 of securities on the Stock Exchange and pays for them by crediting the seller's account with £100, he has increased his deposits—which are money—by £100. It does not even matter whether the seller of the securities is a customer of the purchasing bank or not. For he will deposit the

cheque he receives in payment for the securities in one of the banks. The purchase of £100 of securities by any banker increases the deposits either of his own bank or of some other bank—in any case, the deposits of the banks as a whole—by £100. What is true of the purchase of securities is true of the acquisition of any asset. A bank can buy itself a new building by giving the builder bank deposits in payment. A bank, indeed, is in the happy position of being able to acquire anything it wants merely by giving its IOU in exchange. It can do this because its IOU's are regarded as money and are rarely pressed for payment. Just as any one can 'create' his own IOU's, so the banker can 'create' money and use it to buy what he wants.

But it must never be forgotten that the money the banker 'creates' is his liability. The whole system turns upon the fact that very few of the banker's IOU's will be pressed for payment. But some of them will be. The community requires a certain amount of hard cash and will draw upon the banks for it. In addition, deposits are continually moving from one bank to another. Every day customers of the Midland Bank are drawing cheques in favour of customers of Lloyds Bank, while customers of Lloyds Bank are drawing cheques in favour of customers of the Midland Bank. All these cheques pass through the Clearing House, where they are set off against each other. But there will be every day a small net balance owing by one bank to the other, and the debtor bank must be prepared to settle this debt. Thus the banks have to meet claims from two sources: from the public wanting actual currency for its day-to-day purchases; and from their fellow-banks in settlement of clearing house balances. But these payments form only a tiny proportion of the total monetary transactions of the community, and experience

has shown that only a small proportion of a bank's total deposits need to be kept in cash for these two purposes. The banks keep more than they need in order to make doubly sure, but even then their cash only amounts in England to 10 per cent. or 11 per cent. of their total deposits.

But the need for keeping a cash reserve, however small it may be, imposes a restriction upon the power of the bank to 'create' money *ad lib.* 'Creating' money involves an increase in the bank's deposit liabilities, and the bank cannot afford to let its cash reserve fall below 10 per cent. of its total deposit liabilities. It might, indeed, be safe to let the cash ratio fall to 8 or even 6 per cent. But the public has grown so accustomed to the existing ratio that it would begin to look askance at a bank which allowed its cash ratio to fall below the usual figure. Unlike other people, a banker not only cannot do things which endanger his position, he cannot even do things which people might *think* would endanger his position. His whole business depends upon the confidence of the public in his ability to meet his liabilities on demand. If his reserves are enormous, nobody will question his ability to pay on demand. But if they are falling below the figure to which the public is accustomed, nervous depositors will begin to wonder whether the banker could after all meet all his liabilities, and they will begin to draw their deposits out in cash, just to be sure. There are many paradoxes in the banking business. No banker could pay all his liabilities in cash on demand, if they were all to be presented at once. In that sense, every banker is always insolvent. But the banker's whole business depends absolutely upon his reputation for solvency, upon the public's belief in his ability to pay every demand upon him in cash, without question or hesitation. The bigger his cash

reserves, the less he will need them. The less cash he has, the more he will need.

Any prudent banker, then, will make it an unbreakable rule of his business never to let his cash fall below a certain proportion of his deposit liabilities. In some countries the law is not content to leave it to the banker's prudence, but minimum reserve ratios are prescribed. Thus in the United States every member bank of the Federal Reserve system is compelled by law to keep reserves equal to at least 3 per cent. of its 'time deposits' (*i.e.* those against which cheques cannot be drawn and which can only be withdrawn after one month's notice), and from 7 per cent. to 13 per cent., varying with the location of the bank, of its other deposits. Moreover, these legal minimum reserve ratios can be increased by the Federal Reserve Board, if it thinks fit. They were actually doubled in 1936 and have since been only slightly reduced.

Banks, then, can only 'create' money up to the total of about ten times their cash reserves. We shall proceed in a later section of this chapter to define what 'cash' in this sense is. It is enough for our present purpose to say what it is not. A bank's 'cash' is not any form of money that the bank itself can create or expand at will. A bank's 'cash' must be some form of money with which the bank can pay its debts if called upon to do so. But the deposit-money which the bank 'creates' cannot serve to pay its debts, for these deposits *are* the bank's debts. The amount of cash which a bank has at its disposal (or, more accurately, the amount of cash which all the banks have at their combined disposal) is beyond the bank's power to determine. The bank's power of 'creating' money is thus limited by the cash it can get its hands on. £1 of cash gained makes possible £9 or £10 additional 'creation' of money. But if £1 of cash is lost,

£9 or £10 of deposits must be destroyed. This is the first limitation on the bank's power of 'creating' money.

The second limitation arises out of the nature of the process by which the deposits come into existence. As we have seen, deposits arise out of the acquisition of some asset or other—either a loan owed the bank by a borrower, or a security, or a building, or some other form of asset. Now every asset is a form of wealth. This can be seen easily in the case of stocks and shares or buildings. Nearly every loan made by a bank is secured upon some form of valuable security. Even if it is granted without security, the earning capacity of the borrower is a form of wealth. Thus the bank does not 'create' money out of thin air; it transmutes other forms of wealth into money. Even the mediæval alchemists never hoped to make gold out of nothing; their highest hope was to transform lead into gold. The banker's power is not even so great as this, for he cannot change a worthless substance into a valuable one. But he can turn immobile wealth into the mobile (or 'liquid') form of wealth known as money. He takes the immobile wealth as his asset and gives his IOU (which is money) in exchange. This is the very essence of the banker's business.

The confidence of the public in the soundness of the bank invests the bank's promises to pay with the qualities of money. That is to say, the public uses these promises to make its purchases and to pay its debts. But it should be clearly understood that they are not money in this sense to the bank. To the public a banknote is the representation of an asset; to the bank it is the representation of a liability. When a bank increases its notes or deposits, it increases its liabilities, and it is only right that it should be compensated for doing so. Misconception of this fact is at the bottom of much loose

thinking about the nature of the banking system. It is true that the higher the deposits or notes of a bank the higher are its profits. Banks are therefore always anxious to increase their liabilities. However, the bank makes its profit, not out of its liabilities, but out of the assets it has acquired in exchange for its liabilities. When it makes a loan it does so, as we have seen, by increasing the number of its promises to pay. But it makes its profits out of the borrower's promises to pay, not out of its own. The two things originate in the same transaction, but they are quite separate. If the asset disappears (*e.g.* if the borrower becomes bankrupt) the liability on the notes or deposits remains. If the liability disappears (*e.g.* if the notes are destroyed) the asset remains. An amusing instance of the lengths to which confusion can go is provided by the action of an eighteenth-century Irish crowd which made a bonfire of an unpopular banker's notes, hoping thereby to force him into failure.

'Creation' is thus hardly an exact description of the method by which bank-money comes into existence, and it should never be used without the qualifications that have been discussed being borne in mind. Before a bank can 'create' fresh money, it must have cash equal to at least 10 per cent. of the contemplated 'creation.' Even then the money cannot come into existence without being used to acquire some real wealth for the bank, or without increasing the bank's liabilities which are payable in cash or on demand. But even when these qualifications are fully allowed, the banks' power still remains an enormous one. There are limits to their actions, but within those limits the banks retain a very large power to determine both the quantity of money in existence and the persons into whose hands it shall be placed.

Individual bankers will complain that, even when thus qualified, their powers have been exaggerated. Let us suppose that in any one country there are five banks. Banker A comes into possession of £10 extra of cash. Let us suppose that, having read this chapter up to the present point, he proceeds to make loans until his deposits have increased by £100. So far, so good. But the persons who have borrowed the money will proceed to pay it away and, since there are five banks, the odds are that four out of five of the persons to whom they pay the money away deposit it in Banks B, C, D, and E. These four banks will thus have claims against Bank A for £80 and, as a result of 'creating' £100, Bank A will lose not only the £10 extra cash he started with, but £70 of cash as well. Accordingly, says your practical banker, this talk of 'creation' is nonsense. If a bank has £10 extra cash it can lend £10 extra, neither more nor less. Banks, say the bankers, do not create money; they only lend the money their depositors entrust to them.

There are two answers to this: one theoretical, one practical. The theoretical answer is that the practical banker has not carried his analysis far enough. He stops at the point where Banks B, C, D, and E are getting £20 apiece in cash from Bank A. This will enable *them* to start 'creating' money by making loans. Some of their 'created' money will come back to Bank A, who will thus get some of his cash back. But if his original £10 extra of cash had come from somewhere outside the banking system (*e.g.* gold mined in South Africa) it must be swelling the cash reserve of *some* bank, and until £100 of new deposits have been created somewhere, the cash reserve ratios of all five banks on the average will be in excess of their usual figure. The expansion of deposits and the handing backwards and

forwards of cash *must* continue until the extra £100 has been 'created.'

The second answer is severely practical. The total deposits of the British banks at the time this book is written are about £2,400 millions. But the total amount of cash (*i.e.* money other than bank deposits) in the country has never greatly exceeded £600 millions, and there has never been a time when all, or even nearly all, the cash in the country has been deposited in the banks. The banks, in fact, have never had much more than £250 millions of cash. If the banks do not 'create' their deposits, where can the other £2,150 millions have come from? It is possible to take the figures, either of one bank or of all the banks combined, and observe how the fluctuations in the cash item are almost exactly matched by fluctuations, nine or ten times as large, in the deposit item. To anybody who analyses the matter, either theoretically or practically, beyond the first stage there cannot be any doubt that the banks 'create' their deposits. The only practical limit is set by the amount of cash available.

THE BALANCE SHEET

We have discovered in this discussion two cardinal principles of banking. One of them is the principle of ratios, which we have encountered in the form of the minimum ratio of cash to deposits permitted by law or custom. The other principle is the equality of assets and liabilities. In a sense, this latter principle is not peculiar to banking. Every balance-sheet balances, whether it be the balance-sheet of the Midland Bank or that of a slate club. But a bank's business is, in a very special sense, a balancing of assets and liabilities. A bank acquires assets by increasing its liabilities, not

indirectly as a result of trading, as any other business does, but directly. The bank's assets are directly exchanged for its liabilities. If you wanted to examine the business of a steel company, the first thing you would want to know would be how much steel it made, and the second would be the condition of its furnaces and rolling mills. The balance-sheet would come later. But with a bank, which is a dealer in debts and credits, the first thing you want to know is the amount of its debts and credits. The whole business of a bank is in its balance-sheet. The balance-sheet also has the merit of demonstrating at a glance the ratios to which the bank is working. To carry our discussion of the banks further, we must therefore examine their balance-sheets. Below and on page 52 are printed two sample balance-sheets. One is the combined balance-sheet of the eleven members of the London clearing house in May 1939. The other is the combined balance-sheet of all the member banks of the American Federal Reserve system on June 30, 1939. Both of these balance-sheets are printed in a somewhat simplified form.

MONTHLY STATEMENT OF LONDON CLEARING BANKS, MAY 1939

LIABILITIES		ASSETS	
Capital and Reserves	£138,784 000	Coin, Bank Notes, and balances with the Bank of England	£236,133,000
Deposits	2,166,793,000	Cheques in course of collection, etc.	65,796,000
Notes in circulation	1,414,000	Money at call and short notice	143,476,000
Other items	300,000	Bills discounted	200,722,000
		Investments	604,538,000
		Advances	987,972,000
		Other items	68,654,000
	£2,307,291,000		£2,307,291,000

Member Banks of the Federal Reserve System, June 30, 1939

LIABILITIES		ASSETS	
Capital and reserves	$5,496,000,000	Cash in vault	$712,000,000
Deposits	43,690,000,000	Reserves in the Federal Reserve Banks	10,011,000,000
Borrowings from the Federal Reserve Banks	5,000,000	Balances in other banks	4,674,000,000
		Investments	19,462,000,000
		Advances	13,141,000,000
		Other items	1,191,000,000
	$49,191,000,000		$49,191,000,000

The liabilities side of the balance-sheet is comparatively simple. It consists, in the first place, of the banks' liabilities to their shareholders—the capital originally paid in and any accumulations of undistributed profits. The largest liability item is liability to the public, represented by notes (if any) and deposits. This is the item which represents the bulk of the money supply of the country. In the United States the third item is 'Borrowings from the Federal Reserve Banks.'. The nature of the Federal Reserve Banks will be discussed in a page or two; for the present this item can be regarded as the banks' liability for cash that they have temporarily borrowed. And finally, there is an item of miscellaneous liabilities, incurred by the banks in the course of their business, which need not, for our present purposes, be defined in any greater detail.

The assets side of the balance-sheet is both more complicated and more interesting. In distributing its resources among the different types of asset open to it, the bank has to bear two considerations in mind. First of all, it must be able to meet any claims upon it in cash

on demand. For this purpose it keeps, as we have seen, a certain reserve of cash. In addition, to make itself more secure, it lends out another part of its resources on very short loans, some of them repayable on a day's notice. The ordinary manufacturer or merchant has no use for loans which he may be called upon to repay at twenty-four hours' notice, but they are very acceptable to the different varieties of traders who compose the Money Market.

The second consideration which the banker must bear in mind is income. He must arrange his assets in such a way that the return on them is sufficient to pay the wages of his staff, pay interest on his borrowings, accumulate reserves, and leave a little over for dividends for the shareholders. Now on his cash reserve the banker clearly earns nothing at all. Moreover, short-term loans, in view of their very considerably smaller convenience to the borrower, carry only very low rates of interest. So the remainder of the bank's funds has to be laid out in such a way as to yield a good return. But, broadly speaking, the better the return, the less possible it is to get your money back quickly. The banker can never afford to forget that he has liabilities against every one of his assets, and he must not, therefore, place them where they cannot be liquidated. That at least is the ideal. In practice it cannot be attained. Some of a bank's assets might take years to realize. But, in his own defence, the banker keeps up the form of making only temporary loans, even though, in fact, a great many loans are renewed whenever they mature.

Liquidity and profitability, therefore, are opposing considerations. Cash has perfect liquidity, but yields no return at all. At the other end are some loans which yield a high rate of interest, but are hardly liquid at all. The secret of successful banking is to distribute resources

between the various forms of assets in such a way as to get a sound balance between liquidity and profitability, so that there is cash (on hand or quickly realizable) to meet every claim, and at the same time enough income for the bank to pay its way and earn profits for its shareholders. Apart from cash and day-to-day loans, which have already been mentioned, there are three main types of bank assets, which are—arranged in ascending order of income and descending order of liquidity—bills (sometimes called discounts), investments, and loans (sometimes called advances). Bills of exchange can best be regarded as I O U's of well-known banking houses or merchants or of the government, maturing within three or six months. In London, and to a lesser extent in other financial centres, there is a very active market in bills, which are bought and sold at a discount on their face value, the rate of discount varying with the prevalent rate of interest and the length of time before the bill's maturity.[1] The rate of discount on bills is higher than can be obtained on day-to-day loans, though lower than can be obtained on other investments. But bills are very liquid. Not only is there an active market in them, but holding them for a very few months will bring them to maturity, when they will automatically be paid. Moreover, the Bank of England is always ready to lend cash on the security of 'prime' bills (*i.e.* those carrying the endorsement, and hence involving the liability, of a first-class London house).

Investments, in the case of a British bank, invariably mean gilt-edged British Government securities. In other countries the range from which banks select their

[1] If the discount rate is 4 per cent. per annum, a bill with exactly three months to run before maturity, and with a face value of £1,000, can be bought for £990. The difference of £10 represents interest on an investment of £990 for three months

investments is a little wider. But in any well-conducted banking system, they must be first-rate extra-safe securities. They yield a bit more than bills, but not a very high rate of interest. Finally, there are the bank's loans or advances to its customers, including everything from an overdraft of a few shillings on somebody's housekeeping account to a loan of several millions to a large industrial concern. Even in this last category of its assets, a bank does not neglect liquidity. Banks have a temperamental dislike of long loans. They very rarely grant one for more than a year, and they usually try to confine their loans to a few months. In practice, they may be willing to renew a loan whenever it matures. In practice, too, a debtor may get into difficulties and be compelled to ask for time to pay. But in theory even loans are fairly liquid.

The proportions in which the banks distributed their assets among these five categories in 1939 can be seen from the table on page 51. But 1939 was not in every respect a normal year; in particular, the banks found difficulty in making as many loans as they would like and consequently had to hold an excessive proportion of investments. The ideal ratios would thus be rather different. Giving evidence before the Macmillan Committee in 1929, the Managing Director of the largest British bank gave the following distribution as the ideal towards which his bank tried to work :[1]

Cash	11 per cent.	(*Nil*)
Call Loans . .	7 "	(3½ per cent.)
Bills	15 "	(4 ")
Investments . .	12 "	(4½ ")
Advances . . .	55 "	(5½ ")

[1] Minutes of Evidence taken before the Committee on Finance and Industry (1931), Volume I, page 56.

The figures in brackets give the approximate average yield obtainable at that time on the different categories of assets. These yields are subject to considerable variation, being lower in periods when interest rates in general are low ('cheap money' periods) and higher in periods of stringency. In recent years, yields have been much lower than in 1929.

It should be emphasized once more that all these assets have been acquired by issuing promises to pay. The banker is a merchant of debt, and his assets as well as his liabilities consist merely of debts; the whole system is built up of promises to pay erected on a narrow basis of cash. In a country (such as the United States) where there are many thousands of banks, any one bank, if it had laid its assets out prudently, could conceivably liquidate entirely, that is, sell all of its assets for cash. But if all the banks of a country tried at one time to convert all their assets into currency, they could not do it, for the very simple reason that there is not nearly enough currency in existence.[1] It would almost certainly be impossible for one of the five big British banks entirely to liquidate. Liquidity is, thus, at best a relative conception. Its utility is not that it would really enable a bank to pay all its debts in a crisis, but that regard for liquidity is an aid to the banker in keeping within the bounds of prudent banking.

Within the limits set by liquidity, and by the need for keeping a proportionate reserve of cash, a bank (or, more strictly, a banking system) can make the total of its balance-sheet precisely what it wants. Between the end of 1931 and the end of 1938 the London clearing

[1] For example, in England in December 1938 the combined assets of the Big Five banks amounted to £2,164 millions, but there was only about £550 millions of actual currency (Bank of England notes and coins) in existence.

banks increased their total assets from £1,974 millions to £2,523 millions. They did this, in the main, by buying £339 millions more of investments, paying for them with their promises to pay (*i.e.* by increasing their deposits). And they were enabled to do so because they came into possession of a larger supply of cash. On page 46 we defined cash in a negative way by saying that it is the one form of asset which is beyond the control of the banks, the one form of money which they cannot 'create.' It is now clear from the preceding discussion that this item of cash is the crux of the whole system. Increase it, and the whole banking system, and with it the quantity of money in existence, swells in proportion. Diminish it and the whole banking system contracts. We have seen, from a comparison of the 1931 figures with those of 1938, how the banking system expands under the stimulus of a fresh injection of cash. If it cannot increase all its assets in equal proportion, it expands some of them differentially. Conversely with a contraction. If the banking system were suddenly deprived of some of its cash, it would have to reduce proportionately the total of its assets. Advances possibly could not be diminished at all to begin with. But bills would not be replaced as they matured, investments would be sold, and day-to-day loans called. And as the advances gradually came up for renewal, some of them would not be renewed. So the impetus of contraction would spread through the whole system. It would become more difficult to raise a loan from the banks, and the total of deposits in the hands of the public—its total supply of money—would shrink.

The banks' cash is thus the lever with which the whole gigantic system is manipulated. It is time that we enquired rather more closely into the nature of the banks' cash.

THE CENTRAL BANK

One obvious constituent of the banks' cash is actual currency—that is, notes and coin. A bank must at any time have a certain amount of currency in its tills for paying out to such of its customers as bring cheques in to be cashed. In most modern countries (though not in all) the currency consists in the main of notes issued by an institution known as the Bank of Issue, or Central Bank. In Great Britain the Bank of Issue is the Bank of England, in France it is the Bank of France, in Germany the Reichsbank. In the United States the bulk of the currency (though not all of it) is issued by the twelve Federal Reserve Banks, each of which is the Bank of Issue for its own district. The right of issuing notes, especially notes which are given the quality of 'legal tender,' is reserved, in nearly every country, to this one institution.

Not all the banks' cash, however, consists of notes of the Bank of Issue or Central Bank. In England, in May 1939, for example, only some £122.9 millions out of the total bank cash of £236.1 millions consisted of notes and coins. The remainder consists of deposits with the Central Bank.

It has been pointed out above that the banks are continually presenting claims on each other. Cheques drawn on Bank A and deposited in Bank B will be offset against cheques drawn on Bank B and deposited in Bank A, and only the net differences will remain to be settled in cash. Now these differences could be settled in currency, and in some countries they actually are settled by one bank handing over currency to another. But in most countries the banks settle these 'clearing differences' by drawing a cheque on the Central Bank,

the 'bankers' bank.' This system originated in England, and is largely due to the fact that for nearly one hundred and fifty years the Bank of England was by far the richest and the largest bank in the country. Originally it conducted a general banking business and had many private customers. Some of these customers it still has, though they are now few in number (one of them, the British Government, is the most important customer of all), but in the course of time it has gradually withdrawn from direct contact with the public and has become more and more the 'bankers' bank.' Each of the other English banks keeps an account with the Bank of England, and if on any day's 'clearing' one of these banks finds that it owes a certain sum on balance to one of the other banks, it is obviously more convenient to draw a cheque on its deposit at the Bank of England than to pay in currency. Furthermore, since 'joint-stock' or 'member' banks[1] know that they can draw out their balances at the Bank of England in currency at any time (for the deposits of the Bank of England are promises to pay just as the deposits of other banks are, and must be met in currency on demand), they will regard these balances as cash.

This system, which grew up in England more or less by chance, has been copied in nearly every other country. In many of them the Joint-stock Banks or Member Banks are forced by law to maintain deposits at the Central Bank amounting to a certain specified minimum percentage of their own deposits.

The cash of the Member Banks thus consists partly of notes issued by the Central Bank, partly of deposits

[1] The banks other than the Central Bank are usually called 'Joint-stock Banks' in Great Britain and 'Member Banks' in the United States (*i.e.* members of the Federal Reserve System). The term 'member banks' is used here as being the more intelligible.

with the Central Bank. In both cases, however—and this is the essential point—the Member Banks' cash consists of liabilities of the Central Bank.[1] The sum total of notes that can be issued is fairly closely defined by law, and the amount of them held by the banks does not vary very greatly. The Member Banks' deposits with the Central Bank, however, are subject to considerable variations. When we are thinking of *variations* in the total of the Member Banks' cash, it is to their deposits with the Central Bank that we must direct our attention.

The Central Bank stands to the Member Banks in exactly the same relation as the Member Banks themselves to the public. The man in the street regards his bank deposit as cash, as money; it serves him as a useful way of making payments to his fellow-customers of the banks; and if he wants actual currency for bus fares or paying wages, he can get it by drawing on his bank account. Similarly with the Member Banks in relation to the Central Bank: they regard their deposits with the Central Bank as cash; they use them for making payments to their fellow Member Banks; and they can draw upon them for such supplies of legal tender money as they require.

The analogy can be carried one vital step further. The Member Banks, subject to limits which were discussed earlier in this chapter (one of which was the maintenance of a due proportion of cash), can increase and diminish the size of their assets, and thus of their liabilities, at will. This means that they can increase or diminish the supply of money available to the public. Now the Central Bank is a peculiar sort of bank: it has

[1] This disregards the coins which the banks hold in their cash reserves, and which are liabilities of the State. But their value is very small in relation to notes and deposits at the Central Bank.

special functions to perform, and it is relieved of all competition in its special field ; but it is still a bank, and, like any other bank, it can acquire assets by giving its promise to pay. But if the Central Bank increases its assets and its liabilities, it is also increasing the cash of the Member Banks and enabling them in their turn to expand their assets and liabilities and increase the money supply of the community. Just as the Member Banks can 'create' money, provided they have the requisite cash reserves, so the Central Bank can 'create' the cash reserves of the Member Banks. And what it can create, it can also destroy.

Comprehension of this mechanism is so vital to understanding the way in which the banking system works that it may perhaps be laboured here. When a Central Bank makes a loan it does so, in the same way as any other bank, by crediting the account of the borrower on its own books. If the borrower is one of the Member Banks, this will automatically increase its 'cash.' If the borrower is not one of the Member Banks (*e.g.* the Government) he will presumably not have borrowed merely in order to increase his balance, but will proceed to pay it away. The cheques which he draws on his balance at the Central Bank will be deposited by their recipients in the Member Banks, who will present them for payment to the Central Bank. Payment will be made by the Bank of England by transfers from the account of the original borrower to the accounts of the Member Banks, which transfers increase the Member Banks' cash. Or suppose that the Central Bank has increased its assets, not by making a loan, but by buying securities. The sellers of the securities will be paid either by having their accounts at the Central Bank credited, or, more probably (since few private persons have accounts with Central Banks), by

a cheque drawn by the Central Bank on itself. This cheque will be deposited with one of the Member Banks, who will present it for payment and have its cash increased accordingly. Thus, whoever receives in the first place the Central Bank's promises to pay which it issues in exchange for the increase in its assets, they will all eventually come into the possession of the Member Banks and help to swell their cash reserves. Moreover, a small 'creation' by the Central Bank may result in a large 'creation' by the Member Banks. For example, if the Central Bank increases its assets by £1,000,000 (by buying securities or granting a loan to that amount) the cash of the Member Banks will also be increased by £1,000,000. But if the Member Banks preserve their cash ratio of 10 per cent.[1] they will proceed to expand their assets (other than cash) by another £9,000,000, thus increasing their total deposits by £10,000,000.

The Central Bank thus has the very important power of being able to vary upwards and downwards the quantity of money available to the public. Is this power subject to any limitations? We saw in examining the powers of an ordinary bank that it can only increase its assets and liabilities in proportion to its holdings of cash. A Central Bank is subject to the same limitations, for its promises to pay must similarly be met in currency on demand. Now one form of the Central Bank's promises to pay, its notes, *are* currency, and the foregoing statement might seem to imply that a Central Bank is only under obligation to redeem its promises to pay with

[1] It cannot be assumed that this ratio will always be maintained in all circumstances. The law and common prudence will prevent the ratio falling *below* the legal or conventional level. But if the Member Banks are supplied with very large amounts of cash in a period when they have difficulty in making loans or finding safe investments, they may allow their cash ratio to rise *above* the normal level for some time.

further promises to pay. This is in fact the position in many countries. Every Bank of England £1 note bears on the face of it the words, 'I Promise to pay,' signed by the Chief Cashier of the Bank. But in sober truth there is no mortal thing in which the Bank of England is bound to pay that £1 note, except another £1 note, two 10*s*. notes, or £1 worth of small change. The power of the Central Bank to increase the total available amount of money would therefore seem to be subject to no limitation, so long as the ultimate form of money, in which all others are redeemable, is merely one of its own promises to pay.

At times in monetary history, notably in Germany in 1923, Central Banks have in fact 'created' ever-increasing amounts of money with disastrous results. But in most countries their powers are held in check. In those countries which are on a gold standard the law prescribes that the liabilities of the Central Bank are to be payable on demand not only in currency but also in gold. This clearly limits the extent to which the liabilities can be increased, for not even a Central Bank can create gold; the gold plays the same rôle in the Central Bank as cash does in the Member Banks. In many countries, whether they are on the gold standard or not,[1] the law lays down that the liabilities of the Central Bank are not to exceed a prescribed multiple of its holdings of gold (*e.g.* in pre-war France gold had to be held to the amount of at least 35 per cent. of the total of notes and deposits of the Bank of France). Even in those countries which do not have these direct restrictions, an indirect check can be imposed by limiting the amount

[1] The gold standard is explained in Chapter IX. For the purposes of the present discussion a country can be said to be on the gold standard when the Central Bank is under the obligation of redeeming its notes in gold.

of the Central Bank's note issue. For if the Central Bank allows the deposits of the public with the Member Banks to increase, the public will begin to draw out correspondingly larger amounts of currency (*i.e.* Central Bank notes). Consequently the Member Banks will demand larger supplies of notes from the Central Bank. The Central Bank must bear this in mind when it starts to 'expand credit,' and, if the total amount of notes it may issue is limited, its powers of expanding credit are also subject to an ultimate limit.

In these ways limits are set to the Central Bank's powers of increasing the total quantity of money in existence. The limits which are set to its powers of decreasing this quantity are those of nature rather than of law. The opposite to making a loan is calling a loan, and the opposite of buying a security is selling it. But a Central Bank cannot call more loans than it has made, or sell more securities than it has bought. It cannot even sell all its securities or allow all its loans to run off, for the interest it receives on them is the only way it has of earning a living. A definite limit is thus set to the Central Bank's power of restricting credit and diminishing the amount of money in existence.

Apart altogether from legal and natural restrictions, a Central Bank exercises its great powers with a conscious regard for the best interests of the community. It is indeed often a private institution, but dividends are by custom, if not by law, limited and invariable, and it is not run primarily for private profit-making. Thus most Central Banks keep much higher reserves than they would do if they were intent only on making the highest possible profits. We have seen that the cash reserves of Member Banks can be as low as 10 per cent., and in fact they are frequently lower. But Central Banks rarely keep gold to the amount of less than 30 per cent.

of their liabilities, and the proportion is sometimes as high as 70 per cent., or even higher.[1]

Subject to these limitations, the Central Bank can determine, absolutely, of its own authority, the volume of money that is made available to the public. It fixes the *total* of the Member Banks' deposits. It is still open to the Member Banks themselves to determine who shall hold these deposits, by varying their different categories of assets. The Central Bank thus determines the *quantity* of the supply of money, while the member banks retain their influence over what may be called its *quality*.

The final word in the all-important matter of the quantity of money thus rests with the Central Bank. It does not, however, necessarily follow that the Central Bank always takes the initiative in a change. This may be an appropriate moment to interpose a sample balance-sheet of a Central Bank. On page 66 are printed sample balance-sheets for the Bank of England and for the twelve Federal Reserve Banks of the United States in combination. The date of the Bank of England figures is in the summer of 1939 (some changes have occurred since the outbreak of war in September 1939, but we must suppose that they will be temporary, and a 'normal' balance-sheet is therefore printed). For the American Reserve Banks an earlier date is taken, so as to avoid the abnormal conditions of the last few years in American banking. It should be added that the balance-sheets in each case have been simplified.

These balance-sheets, it will be noticed, are remarkably similar to those of the Member Banks printed on pages 51 and 52. The chief difference is in the appearance of a large item of Notes on the liability side, but, as has already been explained, notes have no fundamental

[1] These figures refer to normal times of peace.

(86)

Bank of England, June 14, 1939

LIABILITIES		ASSETS	
Notes	£494,951,865	Gold and Silver .	£227,563,372[1]
Public Deposits (*i.e.* belonging to the British Government)	22,078,770	Government Securities	415,407,389
Bankers' Deposits (*i.e.* belonging to British joint-stock banks) .	100,296,915	Other Securities . .	22,895,500
Other Deposits (*i.e.* belonging to people other than the British Government or British banks) .	36,399,320	Discounts and Advances . . .	5,631,795
Capital and Surplus .	17,871,186		
	£671,598,056		£671,598,056

[1] Almost entirely gold.

Federal Reserve Banks, December 31, 1928

LIABILITIES		ASSETS	
Notes . . .	$1,809,000,000	Gold	$2,584,000,000
Government Deposits . . .	23,000,000	Other forms of cash . . .	205,000,000
Member Bank Deposits . . .	2,389,000,000	Loans to Member Banks . . .	1,056,000,000
Other Deposits .	27,000,000	Securities . .	238,000,000
Capital and Surplus	401,000,000	Bills of Exchange .	489,000,000
Miscellaneous Liabilities .	13,000,000	Miscellaneous Assets	90,000,000
	$4,662,000,000		$4,662,000,000

distinction from deposits. In the case of the Member Banks' balance-sheets the vital item on the liabilities side was that of Deposits, which form the cash of the public. So in the case of Central Banks' balance-sheets the vital liability item is Member Bank Deposits (Bankers' Deposits in Bank of England nomenclature), which,

ogether with part of the notes, form the cash of the Member Banks

The assets side of the balance is also similar to that of the Member Banks There are the three chief categories of Cash, Investments, and Loans. Cash takes the ultimate form of gold bullion, and it will be noticed that it is a very considerably larger proportion of the total assets than is the case with the Member Banks. Investments take the form either of Government securities or else of such short-term paper as bills of exchange. Loans are advances to the Central Bank's customers. In the case of the American Federal Reserve Banks, their customers are the Member Banks. In England it is the custom that the Joint-stock Banks (Member Banks) do not borrow directly from the Bank of England. When they are in need of funds they call the loans that they have granted to the Money Market in the form of call loans, and the Money Market has to apply to the Bank of England for the funds withdrawn by the Joint-stock Banks. The net effect is approximately the same as with the direct American method.

The method by which the Central Bank increases or restricts the cash reserves of the Member Banks is by increasing or diminishing its own assets. This is precisely the same principle as that which we have studied under the description of 'creating' money. But the foregoing analysis of the Central Bank's balance-sheet illustrates the limitations upon its powers of creation and destruction. The Central Bank can add to its gold stock by buying from those who bring gold to it, or by going out and purchasing gold in the market. It can similarly diminish its gold stock either on its own initiative or on the initiative of those who seek to redeem their notes in gold (where gold redemption is obligatory, *i.e.* on the gold standard). But acquisitions and losses of gold by

the Central Bank will usually bear a close relation to imports of gold into, and exports of gold out of, the country. They are not likely, in any normal period, to be large relatively to the Central Bank's gold holding; nor are they likely to come under its direct control.

Changes in the Central Bank's investments, on the other hand, are likely to be in the main the result of its own initiative. This is entirely true of its holdings of Government securities. If these decline or rise, it is because the Central Bank has deliberately sold or bought in the market. In the case of bills of exchange, the Central Bank may buy or sell of its own volition, but it may also be solicited to buy by the Money Market.

Loans, however, depend entirely upon the initiative of the borrower. It is a maxim of Central Banking practice that the Central Bank will never refuse to lend to any of its customers who can provide acceptable security for the loan. This does not mean to say that the Central Bank is quite powerless to influence the size of its loans. If it wishes to reduce them it can exact a very high rate of interest (*i.e.* it can raise the Bank Rate); if it wishes to increase them it can lower Bank Rate. The reaction to a high Bank Rate is likely to be much more immediate than the effect of a low Bank Rate. Rather than pay, say, 6 per cent. most customers of the Central Bank will get out of debt as quickly as they can. But if they can find no profitable use for funds, a low Bank Rate may not tempt them to borrow.

The Central Bank thus has considerable powers over the size of its own assets, and hence on the size of the Member Banks' cash reserves, and hence on the money supply of the public. Its investments are, in the main, subject to its own initiative. Its loans will be strongly influenced by the level of Bank Rate. These, then, are the two great weapons of the Central Bank: its power to

buy and sell securities, technically known as *Open Market Operations*; and its power to raise or lower the rate of interest it charges for loans, known as *Bank Rate Policy*.

The use of these weapons is not entirely without limitations. Thus, the Central Bank will need to keep an eye on its gold stock. That is obviously true if the country is on the gold standard, and the ramifications of Central Bank policy in gold standard conditions will be considered in Chapter IX. But even if the country is off the gold standard, that is if the Central Bank is under no obligation to redeem its notes in gold, it may well be compelled by law to observe a certain quantitative relationship between the amount of its notes and the amount of its gold, or else a fixed maximum may be set for the note issue. Thus the Federal Reserve Banks' notes must not exceed two and a half times their gold.[1] The Central Bank must therefore exercise caution in expanding the whole credit structure of the country, for if the public has more money in the banks, it will, other things being equal, draw out more in notes, and the Central Bank must be ready to provide the additional notes required without infringing the law. This is a matter which will be gone into in later chapters; our only purpose at the moment is to notice that it imposes a certain restraint upon the actions of the Central Bank.

Financial operations of the Government may also have an effect upon the Central Bank's policies. The Government banks with the Central Bank. When taxes are being collected, large numbers of individual citizens are drawing cheques upon their accounts with Member Banks in favour of the Treasury. The collection of these

[1] Since 1934, the Federal Reserve Banks' holdings of gold have been transferred to the Treasury, and the Reserve Banks have received in return gold certificates, or receipts for gold deposited. This does not affect the argument, as the minimum legal ratio of 40 per cent. still applies.

cheques will swell Government deposits at the Central Bank and diminish Member Bank deposits. But Member Bank deposits are the cash basis for the 'creation' of money; Government deposits are not. Thus anything which diverts funds from the public (which in this sense includes the Member Banks) to the Government tends to contract the supply of money. Conversely, of course, if the Government draws on its balance to pay the salaries of its Civil Servants, or interest on the National Debt, the cheques it hands out will be deposited by their recipients in Member Banks and will be presented to the Government for payment by the Member Banks, whose deposits at the Central Bank will be correspondingly increased. In England, this is not a factor of very great importance, because the Government does not build up a huge balance at one time and let it run down to nothing at other times. When the British Treasury is receiving money more rapidly than it is paying it out, it uses the surplus to pay off debt; when its expenditure is running ahead of revenue, it borrows temporarily, thus keeping its cash balance fairly steady. In the United States and some other countries, however, the cash balance of the Government frequently fluctuates quite widely. It is always open to the Central Bank, of course, to neutralize the effect of the Treasury's operations. If the Treasury is building up its balance, and thereby restricting the Member Banks' cash, the Central Bank can buy securities, or lower Bank Rate to encourage borrowers; or if the Treasury is reducing its balance, the Central Bank can sell securities or raise Bank Rate.

There are thus limits on the Central Bank's ability to control the volume of money in existence in the country. But they are broad and elastic limits. In all normal circumstances, the Central Bank can determine absolutely the size of the Member Banks' cash reserves,

and only one degree less absolutely the size of the public's deposits with the Member Banks. Over the *quantitative* aspects of Money in a modern State the control of the Central Bank is very great. To the question, 'What determines the quantity of money in existence?' the answer is, 'The policy of the Central Bank, using its free discretion within limits which are normally very broad.' This is clearly a power of the utmost social importance. Moreover, it is exercised without competition and with the consciousness of authority. In his own field the Central Banker is clearly a dictator. How far his empire extends it will be the task of succeeding chapters to determine.

THE GROWTH OF CENTRAL BANKING

Central Banking is almost entirely a development of the last few decades. It originated in England almost by chance, because the banks other than the Bank of England found it convenient to settle their clearing balances by cheques on the Bank of England, and came to regard their balances with the Bank as being as good as cash. The system was working in a rudimentary way, and the directors of the Bank of England were vaguely aware of the effects of raising and lowering their Bank Rate even before the Bank Act of 1844 had settled the legal framework of English banking, but the principles of the system of credit control by the Central Bank were not discovered and enunciated until the appearance of Walter Bagehot's *Lombard Street* in 1873. Even then the criteria by which the Bank acted were almost entirely rules of thumb, and there was very little attempt at conscious control in pursuit of a consistent policy before the outbreak of the Great War.

France and Germany also possessed their Central Banks for all, or a large part of, the nineteenth century But, partly because these countries lacked the large and

elastic money market of London, partly because their populations did not acquire the cheque habit nearly as extensively as the British, partly because the Bank of France and the Reichsbank never confined themselves as much as the Bank of England to serving the Member Banks and the Government, but competed freely with other banks up and down the country, they never came into control of so delicate and subtle a mechanism as the English credit system. Others among the commercial nations of Europe—Holland, Sweden, Denmark, for instance—have had banks for some decades which are in greater or less degree true Central Banks.

In the United States there was nothing of the nature of a Central Bank after the collapse of the second Bank of the United States in the thirties of last century. The credit crisis of 1907—when the banks failed to meet their liabilities in cash and had to issue so-called 'clearing house certificates' as a sort of extra-legal emergency currency—demonstrated very impressively the disadvantages of a system of many thousands of unco-ordinated banks, good, bad, and indifferent. The small banks could call on the large banks for help; but when these too were affected by the panic there was no agency to which they could turn for assistance or for a temporary supply of extra cash. As a result of investigations lasting several years, the Federal Reserve Act was passed in 1913. The system set up under this Act borrows its main principles from the English model; that is to say, the Member Banks keep reserves, equal to specified percentages of their total deposits, in the shape of balances with the Federal Reserve Banks. The Reserve Banks operate upon the volume of these reserve balances by changing their Bank Rate (the rate at which they will re-discount for, or lend to, the Member Banks), and also by buying and selling securities in the open

narket. But in addition there were several very interesting innovations in the Act. In harmony with the federal tendencies which have always been strong in American public life, the Act set up not one Central Bank in New York, but twelve Federal Reserve Banks throughout the country, co-ordinated and to a large extent controlled by a Federal Reserve Board in Washington. However, the history of the system in the last quarter-century has not entirely confirmed the wisdom of this scheme. The whole Federal Reserve System has tended more and more to operate as a unit, and the degree of independence possible for the separate banks has been reduced within quite small dimensions. The purchases and sales of securities, which have played a large part in the System's operations, must necessarily be made in New York, far the largest market of the country. Further, the Federal Reserve Board has tended more and more to collect the power of initiating policies into its own hands, leaving it to the individual banks only to execute those policies. In any case, it would be difficult for there to be more than one credit policy inside a single country, where the absence of tariffs and the existence of a single currency necessarily lead to the greatest degree of interdependence of the various regions. In spite of the experiment of the Federal Reserve System, or perhaps because of it, we can lay down the principle of One Currency, One Central Bank.

After the war of 1914–18 this policy was changed to the rather different one of a Central Bank for Every Currency. Wartime exigencies had disrupted the many links which previously connected the different currencies of Europe. Inflation of prices and fluctuating exchanges had reduced banking almost to chaos. In addition, there were several new and intensely nationalistic states, each with a brand new currency, and each desiring to have

a brand new currency policy to match. The Conferences of Brussels and Genoa in 1920 and 1922 declared that order could be brought out of this chaos if each country would create a Central Bank and give it control of the banking and currency arrangements. Co-operation between the Central Banks would then make a coherent policy possible. Under the leadership of the Bank of England and of the financial experts of the League of Nations this formula was gradually put into effect in the decade following the war, and even such small entities as Estonia, Danzig, and Albania were equipped with Central Banks. Under American inspiration the innovation has spread to the South American states, and there is now hardly a country in the world where a Central Bank is not either in existence or proposed.

It must not be thought that the powers of the Central Bank, or its degree of control over the banking system, are the same in every country. Banking, as it is understood in the English-speaking countries, does not exist in many of the nations now equipped with Central Banks. In these countries, banks are still in the money-lender stage distinguished earlier in this chapter. Their function is to collect and distribute the nation's savings, and the bulk of monetary transactions are made with notes rather than cheques. In these circumstances there is hardly any structure of credit for the Central Bank to control, and its functions are merely those of a Bank of Issue.

Even in the more advanced countries, however, there are marked differences in the Central Bank's powers of control. The Bank of England, for example, is a more absolute dictator than the American Federal Reserve System. The Federal Reserve Banks, for one thing, are owned by their Member Banks, and they cannot, in consequence, take too hard-hearted an attitude toward

them. Moreover, the Bank of England never lends direct to the Member Banks. It grants funds to the market either by buying securities (which it can always sell on its own initiative) or by lending to the Money Market on the security of bills of exchange; and, since Bank Rate is always higher than the market rate of discount on bills of exchange, it follows that every borrower from the Bank of England continues to lose money until the loan is repaid. This is, in effect, a guarantee that the loans will be repaid at the earliest possible moment. In the United States, however, the Federal Reserve Banks lend direct to the Member Banks, and though Bank Rate may be higher than the yield obtainable on the particular varieties of asset pledged as security for the loan, it is always open to the Member Banks to raise some of their other charges and thus increase their average rate of interest received above the rate of interest paid on their borrowings from the Reserve Banks. This remedy will not be open to an individual bank in a period when the Member Banks as a whole are not borrowing heavily from the Reserve Bank, since competition will prevent it raising the rates it charges to its customers. But if the Member Banks are all borrowing together, they may find it profitable to go on doing so, and the control of the Reserve Banks will be impaired when it is most needed.

There is one function which the Central Bank performs in every country, which is at times the most important of all. The Central Bank is the lender of last resort. Every monetary system suffers at times from a sudden panic among the public which leads them to demand cash. They may be frightened that their investments are going to become worthless, or that their deposits in the banks are going to be immobilized by the closing of the banks. Or for any one of a variety

of other reasons they may want to hold more of their wealth in the liquid form of cash. The more highly developed banking systems are more prone to suffer from such a 'liquidity preference' than the less developed countries; but none are immune. There is not a country in the world which normally possesses enough cash or currency to meet all its liabilities. Unless the credit system is to break down, with the tremendous shock which that would involve to the public's confidence in it, there must be some means, in an emergency, of temporarily expanding the supply of cash. This the Central Bank can do. It can expand the deposits on its own books of the Member Banks. Or if the public is demanding notes, it can print more and lend them out. The laws of most countries, while limiting the total note issue of the Central Bank, make provision for temporary excesses. In England, it used to be customary in such cases to 'suspend the Bank Act,' *i.e.* for the Government to authorize the Bank of England temporarily to disregard the limitations placed upon its note issue by the Bank Act. Some such provision for elasticity there must be, since the alternative is widespread bankruptcies, not because of any real insolvency, not because assets are unequal to liabilities, but merely because the supply of legal tender currency is temporarily too small to meet the suddenly enlarged demand. This is illustrated by the American panic of 1907, when, because the supply of currency could not be expanded, the New York banks were driven to issue 'Clearing House certificates' which were, in fact, banknotes, although the law had to pretend that they were not. Rather than be compelled to resort to such subterfuges it is far better to have, in the Central Bank, a 'lender of last resort,' empowered to deal with such panics in the only way which will alleviate them, by providing cash for all truly solvent borrowers.

We have thus listed a number of functions of a Central Bank. It is the bankers' bank and the Government's bank[1]; it is the institution which issues paper money; it is the lender of last resort. To perform the two latter functions, however, it does not need to be a bank. The Government itself is perfectly competent to issue notes and, in emergencies, to lend notes to the public. It is only when the development of the banking system has been carried a step further with the building up of a cheque system, when the bulk of the public's money comes to consist of bank deposits, that a bankers' bank becomes necessary. It is then that the Central Bank begins to emerge in its fullest proportions.

Mention of the Government raises the question how far the Central Bank can, or should, be independent of the Government. There is much to be said for removing the Central Bank from the immediate compulsion of political opinions. In the post-war epoch there were so many examples of Central Banks being dominated by the disastrous financial policies of Governments that the international conferences which discussed the subject made almost a dogma of Central Bank independence, carrying it as far as advocating the private ownership of Central Banks. There has been a reaction from these views. Private ownership of Central Banks may mean their ownership by, and control in the interests of, rich bankers or industrialists to the exclusion of the interests of the community as a whole. Since this is still a matter of acute political controversy in many countries of the world, it must be enough to say here that, whether or not the State owns the Central Bank, it must necessarily exercise a considerable measure of control over it. This follows inevitably from the very large and important

[1] The American Treasury occasionally deposits funds in other banks, but the Federal Reserve Banks conduct the bulk of its banking business.

powers which the Central Bank possesses. In fact, the modern tendency is for the State to own the Central Bank but for the actual control to be in the hands of a Governor or a Board appointed for a period of years, and more or less independent of political domination during that period. The dispute is, in any case, a somewhat artificial one. The importance of banking policy for the community at large is fully recognized nowadays, and no responsible Government, whatever its political complexion, could afford to surrender so large a portion of the attributes of sovereignty to an autonomous body. Ultimate Government control there must be, and the precise point on the gradation from ultimate control to day-by-day interference at which Central Bank independence begins is a matter of expediency rather than of principle.

THE MONEY MARKET

It will be as well, before concluding this chapter, to give a brief description of the part played by those institutions which cling to the fringe of the banking system and are known as the Money Market. There is no necessity here to mention most of the many different varieties of financial institution which are to be found in a great centre such as London or New York—insurance companies, finance companies, investment trusts, hire-purchase finance companies, and so forth. We are concerned only with those which play a part in the smooth operation of the banking system. The Money Market, properly speaking, is the market for short-term and day-to-day loans. It is a great advantage to the banks, as we have seen, to be able to lend out a certain amount of money and earn interest upon it, and yet know that it is repayable within a few hours. On the

other hand, institutions which can find a use for such short-term loans can finance themselves very cheaply as a result. For loans of this sort there is always some demand and always some supply, both varying from day to day.

In London, the chief demand for short-term loans comes from the discount houses. We have already had occasion to mention the bill of exchange. It can best be thought of as a post-dated cheque,[1] drawn on and accepted by a house of first-class standing. As such it is a negotiable instrument, a security of value. London has always financed not only her own foreign trade but that of foreign countries as well, by means of bills of exchange. The creditor draws his bill upon the debtor, or upon the financial house in London which by arrangement with the debtor accepts bills on his behalf (these houses thus came to be known as 'accepting houses'). After acceptance, the creditor sells the bill in the market, and thus gets his money at once, while the debtor does not have to pay until maturity. A large market grew up in London for handling these bills of exchange with many firms of 'discount brokers' or dealers in bills of exchange. The British Government avails itself of this mechanism for raising short-term money at low rates of interest. It issues Treasury Bills, which are no more than its own promise to pay in three months' time. Every week the market is invited to submit tenders for the week's batch of Treasury Bills, the available bills going to the highest bidder. At the time this chapter is written, a Treasury Bill for £1,000, payable in three months, is sold at the tender for about £997 10s., the remaining £2 10s. representing interest (or, more accurately, discount) of 1 per cent. per annum.

The discount brokers deal in commercial bills of exchange and Treasury Bills alike. They make their

profit out of the fractional differences in discount rates at which they buy and sell bills. But when the total discount amounts to only £2 10s. on £1,000, it is obvious that a discount broker must handle very large amounts of bills in order to make a sufficient profit. In order to finance his transactions he borrows at call from the banks. This is a perfectly safe thing for him to do; for if one bank calls its loans, he can borrow from another. If all the banks call their loans together, he can always borrow on his bills from the Bank of England, though to do so will involve him in loss, since the Bank of England's rate for borrowing, unlike the other banks' rate, is always higher than the market yield for bills.

In New York the mechanism is rather different. The bill of exchange has never been popular with American financiers, and though efforts have been made in the past two decades to organize a discount market, they have never met with full success. On the other hand, there is another source of strong demand for short-term loans. This is from the stockbrokers. Fundamentally, their need of loans is similar to that of the London discount brokers: both are temporarily carrying valuable securities for which there is a large free market. But there are some important differences. The discount broker is borrowing for his own account; the stockbroker for the account of his clients. The discount broker's bills are not subject to more than very small variations in value; the stockbroker's stocks and shares may move up or down very rapidly. The discount market is steady and unsensational; the security market is subject to very wide swings, not only in the value of the securities traded but also in the volume of business done, and hence in the volume of credit required. Finally, the discount broker can, in the last resort, borrow from the Bank of England on the security of his

bills; but neither the Federal Reserve Banks nor other Central Banks will lend money on Stock Exchange securities, except sometimes for Government securities.

For these reasons, while the London Money Market is a considerable convenience to the English banking system, the New York Call-Money Market has frequently proved to be a source of considerable worry to the American banks. There is, of course, some lending to stockbrokers in London, but it is not very large, mainly because securities purchased on the London Stock Exchange do not (in peace-time) have to be paid for, as in New York, on the next day, but only at the fortnightly account. Similarly, there is some lending on bills in New York, but it is very small.

WHAT IS A BANK?

When Parliament, for the purposes of legislation, found it necessary to define a bank it could do no better than define it as any firm or institution doing a *bona fide* banking business. At the end of this chapter we cannot do very much better. We have described a bank and differentiated the various categories of banks, but we have hardly provided a succinct definition. Perhaps the closest approach would be to say that a banker is a dealer in debts—his own and other people's. The mere exchange of indebtedness would have no purpose unless there were some vital difference between the varieties of debt. Banking realizes its purpose—and at the same time achieves a very great social importance—through the fact that a banker's debts are generally acceptable to the public in discharge of obligations and hence become money. The banker's business is, then, to take the debts of other people, to offer his own in exchange, and thereby to 'create' money. He may be a dealer

in debts, but indebtedness is only the obverse of wealth, and it would be equally permissible to describe the banker as a liquefier of wealth.

The whole system necessarily depends upon the public's confidence in the banker's willingness and ability to meet his obligations. It is in the truest sense a credit system. In Great Britain, where very few members of the general public can remember banking trouble, that may sound like a peculiarly platitudinous observation. But other countries, notably the United States, have had the most startling demonstrations in recent years of what happens to a banking system when the public's confidence is shaken. This dependence on confidence often makes the banker act in a paradoxical manner. When times are good and credit is plentiful, he is perfectly ready to assist in making it still more plentiful. But when times are bad and the breath of fear has already chilled the markets, the banker must be cautious, conservative, and severe. His business has been aptly compared to that of a man who stands ready to lend umbrellas when it is fine and demands them back when it starts to rain.

Bankers and the banking system have been subject in recent years to a very considerable volume of criticism. Some of these criticisms are the inevitable fruit of the way in which the banker is compelled to behave by his dependence upon public confidence (which is not always the same thing as public praise). But there are other criticisms more well-founded than this, and the present chapter may profitably be brought to a conclusion by a brief mention of two of the more important of these criticisms of the banking system as it exists to-day.

It is frequently urged against the British banking system that it grew up to serve commerce, especially foreign commerce. Nowadays, it is complained, commerce is far less important as a demander of credit

than domestic industry. But the English banks have no knowledge of, or sympathy with, the needs of industry. When they make a loan they insist upon its repayment in a period too short to be of any use to an industrial firm. They will accept goods moving in trade as security, but not goods in course of manufacture. And finally the industrialist has no access to the discount market, with its low rates of interest.

Some of these criticisms are badly exaggerated, and the British banks do considerably more for British industry than is sometimes charged. But there is a residuum of truth in the complaint. British banks have, in the past, been much less directly helpful to industry than the banks of either Germany or the United States. In Germany, the connection between banks and industry was very close and direct. Banks would frequently take over virtually the whole financing of a firm, supplying whatever capital it required and nominating representatives to sit on the board of directors. In America, the same result was achieved in a slightly less direct way. The large banks, through their subsidiary companies, assisted industrial firms to make public issues of their securities and thus raise capital from the public. The banks directed the whole proceeding, making handsome profits in the process, and retaining a substantial influence on the direction of the industrial companies concerned.

British bankers have always held deliberately aloof from these practices, and the experience of the German and American banks in more recent years might seem to confirm the wisdom of British abstention. Loans to industrial concerns suffer from the grave disadvantage that they are not liquid. Once granted, they frequently cannot be withdrawn except after a period of years. In this respect they are no worse than many of the loans

granted by British banks. But there is some difference between having a variety of small loans in different degrees illiquid, and being closely associated, in the full light of inevitable publicity, with one or two large concerns which are known to be doing badly. When industrial banking takes the American form of buying the securities of industrial companies rather than making loans to them, this difficulty is overcome, for the securities can be sold, sooner or later, on the Stock Exchange. But there is the further difficulty that industrial securities are subject to very large variations in price, and the bank may achieve liquidity only at the cost of losing irrevocably a large proportion of its original investment.

The advocacy of industrial banking comes in the main from those who are impressed with the importance to the community as a whole of securing ample supplies of capital for industry. But the banker has no exclusive responsibility to industry. His first duty must always be to preserve the confidence of his depositors rather than to take upon himself the duty, which properly belongs to the State, of ensuring the smooth working of the national economy. A banking system which is beset by panic and besieged by clamant depositors is of no assistance but a positive hindrance to the smooth working of the economic system, whether it professes to follow the principles of industrial banking or not.

The purpose of this book is to explain rather than to criticize, and there is no necessity to pronounce a comprehensive judgment on the vexed issue of industrial *versus* deposit banking. It may be suggested, however, that, as with many similar controversies, the truth lies between the two extremes. There is need in Great Britain for some mechanism for ensuring an even flow of capital into industry, and the banks might well be

asked to play their part in creating that mechanism without venturing so hazardously far into the morass as the American and German banks have done in the past. But if a choice must be made between the different functions of a bank, the most important is that it should provide a stable and convenient means of making payments. There are other ways of providing industry with capital; but the modern world knows no more efficient form of money than is provided by the bank deposit.

A second line of criticism which is increasingly being urged against the present organization of the banking system, is that institutions in possession of such enormous powers should not be left in private ownership. There are really two branches of this argument. The first is that since bank-money is 'created' money, bankers should not be allowed to charge interest for its use; that, since it is public confidence which gives the banker's debts the quality of money, the public rather than the banker should reap the fruit of it. The second branch of the argument admits that it is allowable for the banker to charge interest on 'created' money, but would remove his business from private control because of its paramount importance to, and influence upon, the economic policy of the community as a whole.

It is not our present business to say right or wrong to either of these arguments. But it is permissible to suggest that the foregoing sections of this chapter provide the materials for at least a partial answer to the first argument. Bankers cannot 'create' money, either without limit or without cost. Their business, as has been explained, consists of a balancing of their own indebtedness against other people's indebtedness, and their profit arises from the lower rate of interest which they pay on their own indebtedness than they receive

from their debtors. Now it is obviously preferable to be a banker's creditor than to be the creditor of anybody else, since a banker's debts are money, while other people's are not. It would seem to be a legitimate corollary that a lower rate of interest should be paid on the debts which have this advantage to the creditor than on those which have not. But to say that the banker can legitimately make some profit is not to say that he can legitimately make any profit he likes. There is a very strong case for putting banks on the same footing as other public utilities and for controlling their operations and limiting their profits by law.

The second argument for public control of the banks can be regarded in much the same light as the argument for State control of the Central Bank (see page 77). That the State must retain some measure of control of an industry so intimately affected with the public interest as banking is stands to reason. But the precise degree of control which should be exerted, and the question whether it should go as far as public ownership, are matters of taste rather than of principle. There is certainly no divinely appointed law that would keep banks as private institutions for ever, and their nationalization, if carefully thought out and temperately advocated, would do little harm. But, unless the nationalization of the banks made them safer or cheaper (neither of which results would follow automatically), it would do little good. The whole question is one of very little interest to the economist or to any one who seeks to understand the fundamental workings, as opposed to the surface colouring, of the monetary system. It can safely be left to the political dogmatists.

MONEY, BANKING, TRADE AND PUBLIC FINANCE

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3rd Update Edition, 1996



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18 NATURE AND IMPORTANCE OF COMMERCIAL BANKS

In the present-day world in the developed and developing money economies the vital processes of production and consumption are significantly affected by the aggregate money supply consisting of the currrency, demand and time deposits with banks. Any change in the circular flow of the aggregate money supply is bound to exert its significant influence on the size and composition of the real aggregate economic variables-consumption, production, saving, investment, employment, etc.-in the economy. In modern times, since credit or bank money constitutes bulk of the economy's aggregate money supply, it is mostly changes in the volume of bank money or credit (M') rather than changes in the total supply of the high-powered money (H) issued by the central bank comprising of the currency held by the public (C) and the cash reserves held by banks against their deposit liabilities (R) that account for changes in the aggregate money supply. Gone are the old days when commercial banks were regarded as merely purveyors of money. They are today not merely *purveyors* of money but are also the *creators or manufacturers* of money in the system. It is the banks who set the tempo of the aggregate economic activity in the system.

Long back the well-known nineteenth-century economist David Ricarado had stated that a bank was a dealer or transactor in money. But so is also the money-lender. However, notwithstanding this similarity between a bank and a money-lender, the functioning of the two differs materially in as much as the former deals in the money which it receives principally from its depositors while the later transacts mainly with his own money resources. In short, while a commercial bank is a financial intermediary, a money-lender is never one. Although the functions of a commercial bank have multiplied through time and modern commercial bank dabbles in providing many ancillary services to its customers-providing locker services to its customers, advising its clients on tax matters, acting as trustee of minors' estate, etc.—which its ancestral counterpart never even dared to think of performing, its main function still consists of accepting the deposits from public and lending these pooled deposits to the needy members of society mostly against the security of

collaterals. The accepting of deposits of money from the public with the purpose of lending or investing these deposits as the main function of a bank has been stressed in the Indian Banking Regulation Act, 1949 in which the term 'Banking' has been defined as "accepting for the purpose of lending or investment of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft, order, or otherwise." Thus, a bank must perform the two cardinal functions of (*a*) accepting of deposits from public, and (*d*) lending or investing these deposits.

The term *commercial bank* lacks accurate description notwithstanding its long usage. It is inappropriate because it fails to describe accurately the scope of commercial banks' lending activities at present times. Originally, the term was applied because it was widely believed that a commercial bank should give only short-term 'commercial' loans, *i.e.*, commercial bank loans should be for a duration of less than one year and should be given only to traders and merchants to enable them to finance the transportation of goods in the domestic and foreign trade and to finance the holding of trade inventories for short period required for sale. It was also believed that apart from providing short-term financing of trade, commercial banks could also give short-term loans to agriculturists for meeting their current production expenses and marketing their crops. However, with the development of industries this theory changed and the scope of commercial banks' lending activities was extended to include short-term lending to producers for the financing of inventories, wages and other needs for circulating capital. Today, the commercial banks are by far the biggest providers of short-term loans to commerce, industry and agriculture in the economy. But apart from providing short-term loan finances to trade, industry and agriculture, commercial banks today hold a wide variety of earning assets. Apart from lending to a myriad of business firms, including other financial institutions, commercial banks lend to consumers, governments, universities etc. and the maturities of their earning assets range from one day to long-term mortgages and bonds acquired either directly from borrowers or purchased in the primary and secondary securities markets.[1]

[1]The primary market for the debt securities transacts in the new issues of bonds and consists of the direct lending institutions such as the commercial banks and the savings and loan associations and the security underwriting firms. While commercial banks buy the borrower's note (his promise to pay at some point in the future) directly, the security underwriting firms, also called the investment bankers, purchase the new issues of the corporate and government securities from the issuer of the securities primarily to resell the securities to investors The secondary securities' market in which transactions take place in the already existing rather than new bonds or stocks consists of a wide variety of lending institutions and types of securities. The best known of the secondary markets are the various stock exchanges—the New York Stock Exchange, the Calcutta and Bombay Stock Exchange etc The secondary securities markets increase the liquidity

Secondly, the term is misleading in as much as it does not highlight the salient characteristics of commercial bank which distinguishes it from other financial intermediaries. Commercial banks differ from the other financial intermediaries[2]—life and general insurance companies, investment and mutual saving trusts, long-term lending institutions, stock market, etc.—not primarily by the types of their earning assets but by the fact that they are the only intermediaries which by virtue of the fact that their debts circulate as money in the economy, have the power to 'create' and 'destroy' money through their lending activities. While the other financial institutions merely transfer the existing money to the borrowers when they lend or invest, commercial banks can increase the money supply by paying out cash or setting up new demand deposits when they expand their earning assets. Of course, not every increase in the commercial banks' earning assets causes an equal increase in the privately-held money supply—privately-held portion of demand deposits and cash held by the public. Sometimes other types of deposits such as time, government, or interbank deposits rise instead. Generally, however, an expansion in banks' earning assets increases the privately-held money supply in the economy. In short,while the other financial intermediaries are only purveyors of money, the commercial banks, apart from being purveyors of money are also the creators of money in the economy. The creation of money is a unique characteristic of the commercial banks.

Thirdly, the term *commercial bank* is also misleading because it obscures the fact that commercial banks perform not only one but many types of functions. Today, the commercial banks not only issue and transfer deposits through cheques but they also operate the savings deposit accounts, act as underwriters to new equity issues, deal in foreign exchange, provide locker facilities, handle tax matters on behalf of their clients, etc.

A commercial bank[3] is different from a central bank and the distinction between the two terms is essentially based on their objects. While the primary objective of commercial bank is the maximisation of profit, the central bank

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of the financial assets as these can be rapidly sold at prices quoted in the securities market.

[2]Financial intermediaries are those institutions which mediate between the savers in the community (households or corporations) and the users of these savings (individuals, corporations, and government).

[3]The terms commercial banks, joint-stock banks, member banks, and credit banks are frequenty used interchangeably. For example, in the context of the English banking system the terms 'joint-stocks banks' and 'commercial banks' are interchangeable. Similarly, in the American banking system the term 'member banks' nowadays means commercial banks as distinguished from investment banks although this distinction is often blurred in practice.

is primarily concerned with the effects of its operations on the functioning of the economy. Moreover, while there are many competing commercial banks, there is only one central bank in the country. While the commercial banks competing with each other transact with the public, the central bank transacts little, if any, ordinary banking business for the general public; it confines itself mainly to controlling the operations of the banking system in the country.

Commercial Banks and Economy

Commercial banks play an important role in directing the affairs of the economy in various ways. The operations of commercial banks record the economic pulse of the economy. The size and composition of their transactions mirror the economic happenings in the country. For example, the mass failures of commercial banks during the 1930s reflected the phenomenon of severe global depression in the world. Commercial banks have played a vital role in giving a direction to economy's development over time by financing the requirements of trade and industry in the country. By encouraging thrift among people, banks have fostered the process of capital formation in the country. In the context of deposit mobilisation, given the savings-income ratio, commercial banks induce the savers in the community to hold their savings in the form of socially useful assets of which bank deposits constitute the most important element. Commercial banks draw the community savings into the organised sector which can then be allocated among the different economic activities according to the priorities laid down by planning authorities in the country. Banks bring together the diverse decisions of the income-earners to save, the decisions of the savers to hold their savings in the form of bank deposits and the decisions of the producers to draw upon the savings of the community for the purpose of capital assets formation. They help the process of saving and of the holding of savings in a socially desirable form. Through their advances, banks also help the creation of the incomes out of which further savings by the community and further growth potentials emerge for the good of the economy. In a planned economy, banks make the entire planned productive process possible by providing funds for all types of production incorporated in the plan regardless of whether the production is in the public sector, joint sector, or in the private sector, or whether the production is undertaken by one type of organisation or another. All employment, income-distribution and other objectives of the plan are as far as possible subsumed into the production plans which banks finance.

The importance of commercial banks in directing the economic activities in the system-be it a capitalist or a socialist system dominated economy—is indeed overwhelming. Not ony in the highly developed industrial and non-industrial economies of the world where in a way the commercial and

industrial activities are paralysed in the absence of banks keeping their doors open, even in the developing countries most economic activities, particularly in the economy's organised sector, are bank-based. This is evident from the fact that a threat of strike by bank employees union is viewed seriously by trade, industry and government in these countries. In several developing industries, banking has been placed in the category of "essential services" in which strike by the workers is declared illegal. In short, the growth of the economy is tied with the growth of the commercial banks in the economy. Where the commercial banking system is in its primitive stage of development, there the economy has scarcely come out of the primitive stage of barter with total absence of division of labour and specialisation in production. Consequently, people practise primitive methods of production bearing the hardships of primitive culture and life. No development takes place in the economy. With the establishment of commercial banks in the country, the floodgates of accelerated economic development promising great hopes for people in life open. Production no longer remains dependent on the mercy of the small size of local demand. Once it happens, the multiplying process of an ever-expanding demand and supply holds the economy fast in its grip. The banking culture spreads its blessings far and wide in the economic system benefiting the whole community.

SUGGESTED READINGS

L.V. Chandler and S.M. Goldfeld, *The Economics of Money and Banking*, Seventh Edition, 1977, Chapter 5.

Donald T. Savage, *Money and Banking*, 1977, Chapter 3.

R.S. Sayers, *Modern Banking*, Chapter 1.

QUESTIONS

1. Discuss fully the nature and importance of commercial banks in the economy. Is it correct to say that the economic development of any economy is reflected in the development of the commercial banking system of that economy ?

2. A commercial bank is a financial intermediary. Explain this statement. In what important respects does it differ from the other financial intermediaries ? Discuss.

19 EVOLUTION OF COMMERCIAL BANKING

There is no unanimity among the economists about the origin of the word 'banking'. The word 'bank' is itself derived from the Greek word 'banque' *i.e.*, a bench. The German word 'banc' means a joint stock firm. In modern times, commercial banking occupies quite an important place in the framework of every economy because of the continuing challenge it presents to those who are responsible for managing the affairs of nation's banks and to those who observe and study their performance. The character of banking has kept on meandering through time and the working of the commercial banks reflects the changing character of the credit mechanism which is itself the outcome of the economic changes taking place in the economic system. Consequently, the working of commercial banks must be flexible to enable them to face new economic problems and policy issues in order to play their useful role in the economy.

In its naive form, banking is as old as is the authentic history and origins of modern commercial banking are traceable in ancient times. The New Testament mentions about the activities of the money-changers in the temples of Jerusalem. In ancient Greece, around 2,000 B.C. the famous Temples of Ephesus, Delphi and Olympia were used as depositories for peoples' surplus funds and these temples were the centres of money-lending transactions. The priests of these great temples acted as the financial agents until public confidence was destroyed by the spread of disbelief in the religion. Traces of credit by compensation and by transfer orders are found in Assyria, Phoenicia and Egypt before the system attained full development in Greece and Rome. In India, the ancient Hindu scriptures refer to the money-lending activities in the Vedic period. In India during the Ramayana and Mahabharata eras, banking had become a full-fledged business activity and during the Smriti period which followed the Vedic period and Epic age the business of banking was carried on by the members of the Vaish community. Manu, the great law-giver of the time, speaks of the earning of interest as the business of Vaishyas. The banker in the Smriti period performed most of those functions which banks perform in modern times, such as the accepting of deposits, granting secured and unsecured loans, acting as their customers' bailee, granting loans

to kings in times of grave crises, acting as the treasurer and banker to the state and issuing and managing the currency of the country.

Outside India, the traces of 'rudimentary banking' are found in the Chaldean, Egyptian and Phoenician history. According to Alfred Marshall, "in Greece, the temples of Delphi and other safer places acted as store houses for the precious metals before the days of coinage, and in later times they lent out money for public and private purposes at interest, though they paid none themselves. Private money changers began with the task of reducing many metallic currencies, more or less exactly, to a common unit of value, and went on to accept money on deposit at interest, and to lend it out at higher interest permitting meanwhile drafts to be drawn on them."[1]

The development of banking in ancient Rome resembled the Greek pattern. After the fall of the mighty Roman Empire after the death of Emperor Justinian in 565 A.D. banking suffered oblivion and it was only with the revival of trade and commerce in the Middle Ages that "the lessons of finance were learnt a new from the beginning".[2] During the Middle Ages, money lending activities were, however, largely in the hands of the Jews and the financiers of Lombardy who lent to all. The Christians were forbidden by the Canon Law to indulge in the sinful activity of lending money to the others on interest. Christianity took an attitude of contemptuous indifference toward wealth and Christ's teachings also displayed antagonism to wealth. The medieval Church regarded usury as an unpardonable sin for a Christian.[3] However, with the passage of time as the hold of the Church on the laity weakened in the process of development of trade and commerce around the thirteenth century, Christians also took to the lucrative business of money-lending thereby entering into keen competition with the Jews who had hitherto monopolised the business of lending on interest.

The development of commercial banking in ancient times was closely associated with the business of money-changing. Another factor, no less important than money—changing, responsible for the development of early banking were the exigent financial requirements of the monarchical governments of the day who granted banking privileges in exchange for loans. Throwing light on this, Adam Smith has observed:

> "The earliest banks of Itay, where the name began, were finance companies...to make loans to and float loans for the governments of cities in which they were formed..." "After these banks had been long established, they began to do what we call banking business, but at first they never thought of it."[4]

[1]Alfred Marshall, *Money, Credit and Commerce*, 1923, p. 295.

[2]*Ibid*

[3]As a matter of fact the Canon Law was seldom enforced by the Church; in fact, evidence exists that monasteries lent at interest.

[4]Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776.

As a public enterprise, banking, as we know it today, made its first beginning around the middle of the twelfth century in Italy. The Bank of Venice, founded in 1157, was the first public banking institution. Following its establishment, were established the Bank of Barcelona and the Bank of Genoa in 1401 and 1407 respectively. The Bank of Venice and the Bank of Genoa continued to operate until the end of the eighteenth century.

As the trading and commercial activities expanded in northern Europe, there sprang a number of private banking houses, such as the famous house of Fuggers and Augsburg who enjoyed the eminence comparable to that of the Peruzzi and the Bardi in the fourteenth century and the Medici in the fifteenth century in Italy. In medieval Europe, the bankers of Lombardy were famous and to them belonged the credit of planting the seed of modern banking in England when they settled in London in the locality now famous as the Lambard Street. Apart from these private banking houses, there were also established public banks like the famous Bank of Amsterdam which was founded in 1609. The principal function of these banks was to help in the development of trade and commerce by receiving by weight the heterogenous metallic money then current and creating in exchange for it deposits in their books that were transferable through bank cheques. Consequently, these early banks served the community by furnishing it with a uniform standard of value through the medium of bank money and by settling the mercantile payments through the book entries.

The Bank of Amsterdam was the great bank of the seventeeth century and it enjoyed a prestigious position, no less important than is held currently by the Bank of England, for a long time in the sphere of international commerce. Alfred Marshall has observed that the famous banks such as the Bank of Amsterdam besides acting as the fiscal agents for the governments of the day were also "responsible for the counterpart of such of the work of the modern stock exchanges." These banks acted as go-between between the lenders and borrowers of funds and the holders of cash and old securities. Adam Smith has beautifully described the main function of the Bank of Amsterdam in the following words:

> "This Bank received both foreign coin, and light and worn coin of the country at its intrinsic value in the good standard money of the country, deducting only so much as necessary for defraying the expense of coinage, and the other necessary expense of management. For the value which remained, after this deduction was made, it gave a credit in its book. This credit was called bank money which, as it remained money exactly according to the standard of the mint, was always of the same real value, and intrinsically worth more than current money. It was at the same time

Everyman's Library Edition, Volume I, Book IV, Chapter III, Part I, p. 423.

enacted, that all bills drawn upon or negotiated at Amsterdam......should be paid in bank money, which at once took away all uncertainty in the value of those bills........ Bank money, over and above its intrinsic superiority to currency, and the additional value which this demand necessarily gives it, has likewise some other advantages. It is secure form fire, robbery, and other accidents; the city of Amsterdam is bound for it; it can be paid away by a simple transfer, without the trouble of counting or the risk of transporting it from one place to another."[5]

Although the development of banking in England is ascribed to the activities of London goldsmiths during the reign of Queen Elizabeth I, several other enterprisers who acted as money-changers, money-lenders, and exchange specialists had overshadowed them. The goldsmiths assumed prominence only around the middle of the seventeenth century after the seizure in 1640 by King Charles I of large gold hoards that were kept in the famous Tower of London by the merchants of London. The London merchants were so much frightened by this event that although their seized deposits were returned by the monarch they decided to look elsewhere for the safe deposit of their surplus funds and in the process of the search they deposited their surplus bullion with the goldsmiths. The goldsmiths soon discovered that they could earn handsome interest income by lending the merchants' money deposited with them. Later, the goldsmiths began to pay some interest to their depositors in order to obtain more deposits. The goldsmiths used to receive valuables and money from their customers for safe custody and issue receipts acknowledging the same. These notes, with the passage of time, became payable to the bearer on demand and enjoyed considerable circulation. In this way, the goldsmiths' promisory note became the precursor of the modern bank note and goldsmiths became the forerunners of the modern commercial banking institutions.

The goldsmiths' business, however, suffered a great set-back as a result of the ill-treatment they received at the hands of the government of Charles II under the Cabal Ministry. Accoring to Walter Bagehot, the government "perpetrated one of those monstrous frauds which are likewise gross blunders. The goldsmiths who then carried on upon a trifling scale what we should now call banking, used to deposit their reserves of treasure in the 'Exchequer' with the sanction and under the care of the Government.......But Charles II showed that it was trusted undeservedly. He shut up the 'Exchequer,' would pay no one, and so the goldsmiths were ruined." The ruin of the goldsmiths was, however, significant for the development of English banking as it resulted in the growth of private banking and led to the establishment of the Bank of England in 1694.

[5]Adam Smith, *op. cit.*, p. 423.

Tracing the evolutionary history of modern English commercial banking Geoffrey Crowther has stated:

"The present-day banker has three ancestors of particular note. One we have already met : the merchant, whose high and widespread reputation or credit enables him to issue documents that will be taken all over the known world as titles to money. To this day the title of 'merchant banker' is reserved by usage to the older cosmopolitan and more exclusive private banking firms, nearly every one of which can trace its ancestory to a trader in commodities, more tangible (though hardly more profitable) than money.

The banker's two other ancestors are the money-lender and the goldsmith. Lending and borrowing are almost as old as money itself and the village money-lender is found even in quite primitive communities. He is not usually regarded as a very lovely object; usurer is one of the oldest terms of abuse. But the services he performs are undoubtedly useful and necessary, even though the reward he exacts in return may usually be rapacious. The money-lender works, of course, with his own capital. But if there are any other members of the community with money to spare, it will be quite natural for them to entrust it to the money-lender for investment, in view of his skill and experience in the technique of exaction. As soon as the money-lender reaches this stage, he is an embryonic banker. He has become a money borrower as well as a money-lender. At first he may merely lend out his clients' money on commission, just as a present-day solicitor does. But it is obviously both more convenient for his clients and more profitable for him to borrow their money outright, paying interest on it and mingling it with his own capital, and then to lend out the whole lot, making his profit from the difference between the moderate rate of interest he pays to his lending clients and the high rate he charges to his borrowing clients.

The goldsmith ancestory of the modern bank is purely an English affair. Indeed, the bank as a provider of circulating money is almost entirely an English invention...."[6]

Notwithstanding the establishment of the Bank of England in 1694, the development of modern commercial banking institutions had to wait for another century and four decades until the passage of the Banking Act of 1833 which provided for the establishment of joint stock banks. While banking arose far early and more rapidly in some countries than in others, it was only in the nineteenth century that the mordern joint-stock commercial banking system developed in the leading countries of the world.

[6]Geoffrey Crowther, *An Outline of Money*, Revised Edition, 1958 Reprint, pp. 22-25.

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QUESTIONS

1. **Describe** the evolution of modern commercial banking.
2. **Discuss** the history of development of commercial banking from early times to the present-day.

20 SOURCES AND EMPLOYMENT OF BANK FUNDS

INTRODUCTION

A commercial bank is essentially a dealer in money. It is a financial institution which accepts the demand and time deposits from businesses, institutions and individuals and engages in both business and consumer lending. A commercial bank, however, differs from a money-lender who also deals in money because, unlike the money-lender who deals in the money which belongs to him, the money dealings of the commercial bank are largely based on the money which it receives from others-its depositors. In other words, the source of bulk of its money-lending transactions is derived from the public deposits of different kinds. When the money-lender reaches the stage of accepting others' money for lending he is an embryonic banker. Like any other commercial dealer, the stock-in-trade of a bank consists of its paid-up capital and reserves, deposits received from the public and sister banks, and borrowings made from the central bank. The funds derived from different sources constitute the liability of a bank since the act of receiving of all these funds, except the paid-up capital and reserves, creates a corresponding liability on the bank to repay the same on demand to those who own these funds. Every commercial bank creates income-yielding assets against its liabilities subject to certain constraints. These assets comprise of the cash in hand, money at call and short notice, cash balances with the central bank, bills purchased and discounted, loans and advances, investment in government and other securities, premises, other immovable property, and other assets consisting of bullion, shares and debentures of public and private corporate form of enterprises. A commercial bank strives to create different types-assortment-of assets against it liabilities such that it is able to optimise its aggregate net earnings consistent with its obligations as a bank vis-a-vis its depositors-it should be able to refund the deposit money to its depositors on demand promptly. The three most important considerations which guide the fund lending policy of a bank are safety, liquidity and profitablity.

The effort of a commercial bank to maximise its total net earnings (profit) by employing its funds productively, which consist mainly of depositors'

money withdrawable on demand subject to the rules of the bank relating to withdrawing of deposits,[1] creates the difficult problem of asset management for a commercial bank. It is, therefore, obvious that the bank will create diversified assets-portfolio consisting of different assets of varying maturity pattern that match the several and varied sources of supply of its funds. The process of commercial bank asset management must ensure the liquidity, solvency and profitability of the institution. Thus, while it would be a folly for a bank to burden itself unduly with idle cash,[2] it can ill-afford to lock its entire cash holdings by meeting the demand for loans and advances of its borrower customers in its over-anxiety to earn more interest income. In short, the total assets portfolio of a commercial bank, particularly its loan-portfolio, has to be no less diversified than are its deposit liabilities.

The consideration of liquidity requires that the bank should be able to pay back its depositors' cash on demand. Since bulk of deposit liabilities of a commercial bank are subject to withdrawal either without notice or on prior notice terms, any commercial bank must meet the demand for payment or close its doors-go into liquidation. A prudent banker can ill-afford to neglect his cash position because the bank is under obligation to change bank deposits for cash. To be able to meet withdrawal of deposits, the bank has to maintain adequate cash reserves which will vary as the composition of total deposits changes. A prudent banker should maintain an appropriate cash reserves ratio because while an excess of it will lower the income of the bank, a very low cash reserves ratio is likely to endanger the existence of the bank. For example, if demand deposits dominate the deposit-liability portfolio of a commercial bank, it has to maintain larger percentage of total deposits in the form of cash reserves compared with the situation in which time deposits comprise the bulk of bank deposits.

The accepted cash reserves ratio is not uniform in all countries. For example, in India where the money market and the practice of making payment by cheques is not so well developed as in England and the USA, the cash ratios of the Indian banks are higher than those of their English and American counterparts. The minimum legal cash reserves ratio for the Indian

[1]The bank rules relating to the withdrawal of deposit money might be that the depositors can withdraw their deposits only between certain specified banking hours during week-days (Monday through Saturday) subject to certain maximum amount and the number of withdrawals as is, for example, in the case of savings bank deposits. There are generally no restrictions on withdrawals from current or demand deposits accounts except the one of banking hours.

[2]A bank incurs both the implicit as well as the explicit cost of holding cash. The implicit cost is the interest income foregone which it could have earned by lending or investing the idle money. The explicit cost of holding cash is the expenditure which a bank incurs in keeping the money in safe custody and care. It involves the cost of locks, safe vaults, salary of gunman etc.

banks varies from 3 to 15 per cent of their deposit liabilities and at present it stands at 9 per cent. In order to check the excess lending by commercial banks, the incremental cash reserves ratio was raised to 10 per cent effective from November 12, 1983.

Protection of solvency is the second aspect of bank asset management. According to this aspect, a bank is solvent as long as the cash value of its assets is greater than the value of its liabilities. The threat to solvency is much greater for the financial institutions than it is for other types of business. In the case of a commercial bank, if the value of assets decreased by more than 8 or 9 per cent, liabilities would exceed the assets and the bank would be insolvent. Consequently, the bank cannot afford to create a risky asset-portfolio.

Solvency is different from liquidity. A bank may be solvent and yet it might fail on account of neglecting the aspect of liquidity in its asset management. This is what happened in the case of the Palai Central Bank when it failed in 1960. The bank failed even though it was found to be solvent. On the other hand, many a liquid but insolvent banks managed to survive the bank panics of the 1930s although on examination these banks would have been found insolvent.

The third aspect of asset management is profitability. The bank is a business proposition and it must declare handsome dividends to its share holders. Unless the profit outlook of the bank is bright, new funds will be difficult to obtain. The commercial banks earn profit through lending their funds to borrowers at interest which is higher than that which is paid by them to their depositors whose funds are utilised by them for lending purpose.

SOURCES OF SUPPLY OF BANK FUNDS

Paid-up Capital and Reserves

The paid-up capital and cash reserves of a commercial bank constitute by far the most dependable source of bank liquidity. The paid-up capital comprises of the cash amount contributed in cash by public on their shares to the bank. The paid-up capital is less than the authorised capital and it is either equal to or less than the subscribed capital. Authorised capital is the maximum which a bank can issue for public subscription under its Memorandum of Association. Generally, the board of directors of a bank does not issue the entire authorised capital for subscription by the public. And the entire issued capital may not be subscribed by the public. If the entire subscribed capital is not paid-up by the public, a part of the subscribed capital may be paid subsequently when asked by the board of directors. The amount which is subject to 'call' is known as the 'Reserve Liabilify.'

For the sake of safety, a commercial bank keeps a reserves fund which is created out of the undistributed profits every year. The bank draws upon the

resources of its reserve fund in periods of losses. In India, every commercial bank is legally required to set apart a part of its profit for the reserve fund until the fund becomes equal to its paid-up capital. Besides, commercial banks also maintain "secret reserves," "reserves for bad and doubtful debts" and "dividend equalisation fund" created out of profits.

The paid-up capital and reserves of a bank provide protection to the depositors of a bank when it faces the danger of liquidation. To the extent these funds represent the owned funds of the bank, it is this source of bank liquidity upon which the bank falls in times of financial crises when its capacity to meet its financial commitments toward its depositors is impaired. In fact, the ability of a commercial bank to withstand successfully any crisis of confidence of its depositors in its creditworthiness depends largely upon the size of its paid-up capital and cash reserves that are available to it as a cushion to absorb any shock it might receive at the hands of its scared depositors. Low paid-up capital and meagre cash reserves and a sound commercial bank ill-go together.

Deposits

Next to the paid-up capital and cash reserves, the other most important source of supply of commercial bank liquidity is the deposits which banks receive from their depositors comprising of individuals, corporate form of business enterprises, firms and others including educational institutions, local bodies and government. The depositors of a bank are drawn from all walks of life residing in the urban, semi-urban and rural areas of the country pursuing all sorts of conceivable vocations. So much important are the deposits as the single source of bank liquidity supply that banks often engage in keen competition for deposit mobilisation because the capacity of a bank to grant credit to its borrower clients depends upon its capacity to mobilise deposits. But for the large funds which banks receive as deposits, their investment and lending activities would have been on a considerably smaller scale than these, in fact, are.

Bulk of the total earnings of commercial banks is derived in the form of interest income derived from loans and advances made by the banks to trade, industry and other borrowers and the interest earned from investments made in the government and other securities. The extent to which banks can grant loans to their constituents depends on the amount of liquidity they command and deposits are the single largest source of the composite supply of their total liquidity. Since every commercial bank operates on the fractional reserve system, commercial banks keep only a part or certain percentage of their total deposits in the form of required cash reserves and lend the rest to the borrowers creating the non-liquid income-yielding assets in the process of lending. *Ceteris paribus*—minimum legal cash reserves which banks are

required to keep with the central bank, vault cash, creditworthiness of the borrowers, and the composition of deposits remaining unchanged-the total bank credit is a stable function of the aggregate deposits, changes in the two being uni-directional.

The aggregate deposits of commercial banks are composed of the time and demand (current) deposits. The demand deposits are most volatile and these may be withdrawn at any time by their depositors subject to the general rules of banks governing these deposits. In other words, their withdrawal or transfer from a bank does not require any previous notice to be served on the banks by their depositors. No interest is generally paid by the banks on these deposits. Mostly it is the business firms, corporations and other institutions who own these deposits. Time deposits, fed by fixed deposits and partially by saving deposits, are so-called because these can be withdrawn by their owners only after the expiry of the stipulated period for which these have been made. Such deposits, since these are rendered non-liquid, carry higher rate of interest depending upon the period after which these deposits can be withdrawn. Educational institutions, individuals, charitable trusts and others having surplus funds own these deposits.

In his book entitled *A Treatise on Money* John Maynard Keynes classified bank deposits into *income deposits, business deposits* and *savings deposits*. Individuals hold a ready command over money in the form of bank deposits to bridge the time interval between receipt of income and expenditure and also to provide against contingencies. These deposits are called *income deposits*. For meeting similar requirements, business firms hold *business deposits*. These two types of bank deposits are roughly identical to the demand or current deposits. The *savings deposits* roughly correspond to the fixed deposits.

Other Liabilities

Apart from the paid-up capital, cash reserves and deposits, the other principal components of the liabilities portfolio of commercial banks are the borrowings which the commercial banks' make from the central bank.[3] The size of commercial banks' borrowings obtained from the central bank is barometer of the degree of the borrower-lender relationship which exists between the commercial banks and the central bank and consequently of the

[3]Ever since Walter Bagehot wrote his famous classic entitled *Lombard Street* in 1873 asking the Bank of England to make funds available to member banks in times of crises as the lender of the last resort, it has been accepted as an obligation cast upon the central banks in all the countries of the world to lend to the member banks when none else is willing and able to lend them in order to save them from coming to grief. In modern times, it is one of the important functions of a central bank to act as *lender of the last resort*

dependence of the former upon the latter in the country. This relationship is very significant in the matter of enabling the central bank to exercise an effective control over the credit-creation activities of the commercial banks in the economy. The degree to which the member banks depend for financial accommodation on the central bank is a measure of the degree of effectiveness of the latter in influencing the lending or credit-creating activities of the former and consequently of the effectiveness of central bank's monetary and credit policy in achieving the desired economic goals. In India, the commercial banks borrow from the Reserve bank of India and the sum borrowed varies depending upon the busy and slack season and the liquidity position of the banks.

Asset Portfolio

Having briefly discussed the main sources of supply of funds of commercial banks, let us now very briefly discuss the uses to which these funds are put by the banks. The most profitable activity of commercial banks consists of lending surplus cash either by way of making loans or granting overdraft facilities to their customers. While banks are anxious to utilise their funds in such a manner so as to optimise their net income from the use of these funds, they can only ill-afford to ignore the liquidity criterion for their funds. Responsible bank personnel (bank manager and others), who look after the manner of utilisation of the surplus funds have always to remember the hard fact that the ownership of such funds as they have acquired (barring paid-up capital and reserves) vests in the depositors whose autonomous decision to withdraw their deposits as and when they please (subject to certain bank rules which they have agreed to abide by) have to be scrupulously respected by refunding them their deposits promptly on demand. Consequently, every bank strives to maximise its net profit earnings by employing its surplus cash by lending it to trade and industry against tangible and/or personal security in a manner which in no way impairs its capacity to pay on demand the acquired funds to their owners or persons named by them. A prudent bank manager strives to distribute his bank's assets in such a manner that as and when needed he should be in a position to convert his assets into cash quickly and without incurring any loss. The most liquid asset is cash which yields nothing to the bank. Apart from cash in hand, commercial banks are also statutorily required to keep a certain precentage of their total deposits with the central bank. The cash balances kept with the central bank rank pari passu with the cash in hand. Commercial banks also maintain cash deposits with the other commercial banks.

Apart from cash in hand, cash balances held with the central bank and balances held with the other banks which constitute the first defence for commercial banks as these can be acquired immediately without any cost, the

other asset ranking next to cash is money at call and short notice comprising of short-term loans callable at very short notice. As money at call is convertible into cash without notice, it commands an attribute of high liquidity ranking next to cash. It earns a very low rate of interest for the bank. So also is the case with money callable at short notice. However, since compared with money at call it is relatively less liquid the yield is slightly higher. Money at call and short notice constitutes a larger percentage of banks' total assets in those countries which have developed money markets compared with those whose money markets are either not developed or not properly functioning. Such is the situation in most developing countries.

Apart from cash in hand and balances with the central bank, balances with other banks and money at call and short notice, the two principal items of the asset-portfolio of commercial banks are the advances or bank credit and investments made in government and other approved securities. Investment in government securities includes investments made in the long-term, medium-term and short-term securities including the treasury bills which have maturity of 91 days. In India, commercial banks make investments both in the central government and state governments' securities of differing maturities. Many countries have provided for the statutory provisions regarding the minimum percentage of bank deposits that must be invested in government securities. In India, the investment-deposit ratio of scheduled commercial banks stands at around 35 per cent. Similarly, the central bank may and frequently does determine the size and distribution of the aggregate bank credit in the economy.

As a rule, commercial banks generally lend only for short-term commercial purposes to finance the needs of trade and commerce. Before granting a loan, a commercial bank carefully considers the margin of safety offered by the security, possibility of fluctuations in its value, and shiftability. In the case of an unsecured loan, since its repayment entirely depends on the credit of the customer, the bank gives a thoughtful consideration to the "character, capacity and capital" of the borrowing customer. In either case, a shrewd bank manager aims at diversifying bank's loans as widely as possible over many industries and districts. In India, at present the commercial banks have been lending to the poorer sections of society under various schemes without any tangible security. The lending operations of the banks are now based on social welfare criterion rather than based on profit criterion. The profit motive while not altogether ignored has ceased to be the beacon-light of banks' lending policy.

The asset protfolio of a commercial bank also shows bills discounted, acceptances and endorsements as per contra, furniture and premises, etc. Bills discounted are also a highly liquid earning-assets and are included in the money market assets. These are regarded as self-liquidating automatically out

of the sale of goods covered by these bills, i.e., first class bills are self-liquidating papers and are readily transferable to the central bank by way of rediscount without much loss because of the very short maturity duration of these bills. In the bank's asset portfolio, trade bills and treasury bills rank slightly inferior in the attribute of liquidity as against the money at call.

Theories of Bank Fund Utilisation

In the traditional banking literature, in the matter of asset management or fund utilisation the real bills doctrine and the shiftability doctrine were widely discussed. According to the real-bills doctrine which was forcefully emphasised by the "currency school," commercial banks should lend only against the self-liquidating short-term assets—bills which originated to finance the real production and movement of goods. As the borrower is engaged in the genuine trade transactions, at the end of the short period on the maturity of the transaction, the banks automatically received payment.

At present, the real-bills doctrine is discredited. The doctrine overlooks the fact that banks cannot sit idle for the entire period of maturity of real bills. In times of need, the real bills will need to be shifted in order to acquire cash to pay the depositors. Moreover, even though the short term loans are renewable, in practice the banks may refuse to renew such loans creating trade and commercial crisis in the system.

According to the shiftability doctrine of fund management, the assets must be such that the bank may when needed shift these to other banks or institutions quickly without loss. Thus, so long as the assets command real shiftability their maturity is of secondary importance. However, the issue of maturity of assets cannot be entirely overlooked in as much as the long maturity assets may involve loss to a bank in the process of shifting in order to acquire the needed cash.

There are now two broad or general approaches to the commercial bank fund utilisation. These are the pooled-funds approach and the asset-allocation[4] approach.

The pooled-funds approach is based upon the belief that the commercial banks employ their funds in creating different types of assets—assorted assets comprising of different loans, securities, buildings, debentures, gold and many others—regardless of the sources of supply of their funds. Where most

[4]The asset—allocation approach has been discussed at some length by Fred G.Delong in an article entitled "Liquidity Requirements and Employment of Funds," printed and published in K.J. Cohen and F.S. Hammer (eds.), *Analytical Methods of Banking*, 1966. For the other related literature see: R.I. Robinson, *The Management of Bank Funds*, Second Edition, 1962; D.R. Hodgman, *Commercial Bank Loans and Investment Policy*, 1963; and H.D. Crosse, *Management Policies for Commercial Banks*, 1969.

of the commercial bank funds are derived from a single source this approach works out satisfactorily. For instance, in the past when bulk of the commercial bank funds constituted the demand deposits it was needless to differentiate between the different sources of supply of bank funds. But nowadays, it is argued by the critics of this approach, when the deposit-mix of commercial banks has radically changed and keeps on continuously changing under the impact of dynamics of growth, the pooled-funds approach is obsolete and is deterimental to the realisation of optimum yield from bank funds as it ties liquidity to total deposits among which might be certain types of deposits-time deposits-against which the banks can do without maintaining the same high ratio of liquidity which they might consider essential to maintain against the demand deposits. Consequently, the pooled-funds approach, which takes no notice of the changing pattern of the total deposit-mix of commercial banks, is faulty and leads to inefficient conduct of banks' asset portfolio management.

The asset-allocation approach to bank fund utilisation, which has been developed in recent years, stresses that the investments made in different types of assets have to be directly related to the different sources from which funds are derived by the banks. Thus, the fundamental criterion which must be followed in allocating funds for acquiring different types of assets is that the velocity—turnover rate—of the different sources of supply of funds determines the appropriate maturity of the assets acquired through fund utilisation. For instance, while relatively stable funds, like savings deposits, fixed deposits and paid-up capital, could be used to buy long-dated high yield-giving securities, demand deposits, which are most volatile, could be used to acquire relatively liquid assets like cash or money at call and short notice on which little or no return is made by the banks.

It is contended by the supporters of asset-allocation theory of fund-utilisation that for too long commercial banks have been concerned with total liquidity regardless of the purposes met with such liquidity. Liquidity, it is argued, has two purposes. The first and basic purpose of maintaining liquidity is to enable a bank to pay back its depositors. Secondly, cash is kept to face withdrawals consequent upon the increase in the loan commitments of a bank since a part of the loan made by a bank to its constituents leaks out in the form of cash withdrawals. Since rarely, if at all, two banks have identical requirements it is impossible to establish any total liquidity ratio for the banking system as a whole. Banks can do by maintaining lower liquidity ratio against the time deposits than is regarded essential to be maintained against the demand deposits. Where the deposit-mix of banks is not stable but volatile it would seriously impair the profit-optimising capacity of banks by requiring them to maintain uniform liquidity ratio regardless of the nature of their deposits by tying liquidity to their total deposits.

According to this approach, liquidity for loans is no more standard for banks than it is for deposits. The loan-mix or composition of the credit portfolio of a bank should determine the amount of cash required. Loans and advances made to trade and industry are more volatile than are the consumer loans. Consequently, those banks which deal mostly in mercantile loans can do with relatively less cash than the banks enagaged mostly in consumer credit. Each bank has, therefore, to determine for itself the appropriate liquidity ratio by looking at its credit portfolio's structure. Since the total scheduled bank credit during the last two decades has increased faster than the aggregate scheduled bank deposits (percentage of total scheduled bank credit to total scheduled bank deposits rose from 60.9 in 1951 to 66.0 at the end of 1987) liquidity for loans has been a real problem.

Criticisms

The pooled-funds theory of bank fund utilisation recognises the important fact that differing liquidity is required to be maintained for the differing sources of supply of bank funds. On the other hand, the asset-allocation approach, based on the belief that the available funds should be utilised to acquire those assets which are appropriate to the velocity of such funds, overlooks the important difference between the velocity of any particular rupee of deposits and the minimum amount of deposit balances. The fact is that the high velocity which characterises the individual demand deposits does not necessarily warrant our reaching the conclusion that the aggregate demand deposits are highly volatile. What this theory overlooks is the fact that while each individual demand deposit is highly volatile and is consequently subject to a high turnover rate, the aggregate average minimum demand deposit balances of a bank are stable for the reason that each day's aggregate demand deposit outflows are more or less cancelled by the corresponding inflows of these deposits. The argument that demand deposits on account of their high velocity should only be utilised as money at call and short notice assets or to purchase the low-yield short-term securities overlooks the fact that there might be substantial demand deposit balances with a bank which it could safely utilise to acquire the medium and long-term securities and consequently higher-yield giving assets.

Secondly, according to the asset-allocation approach, a bank's minimum liquidity requirement is positively correlated to the size of its deposits, assuming stability of the deposit-mix over the course of a trade cycle. Since commercial bank deposits are positively correlated to the tempo of business activity, it follows that as the trade expansion proceeds the minimum liquidity reserves of a bank will also expand. This liquidity is exclusively maintained to enable a commercial bank to meet the deposit withdrawals. This being so, the minimum liquidity reserves would not be available to support the new demand for loans created in the wake of business expansion.

This bank behaviour based on this view runs counter to the widely held view that in times of expanding business activity the fundamental purpose of bank liquidity is to support the increased demand for bank loans. Endorsing this view, Robinson has stated that during upward phase of a business cycle the major purpose of bank liquidity is to enable a bank "to meet the demand for loans from its favoured customers. This circumstance arises when a high level of economic activity prevails in the economy. This is the more real and more pressing type of liquidity requirement normally met in managerial operations."[5] Hodgman has stated in stronger language that "........the primary function of the investment portfolio........is to provide a reserve of funds for loan expansion..........there appears to be no reason for the substitution of loans for bonds to stop short of total liquidation of the investment portfolio if loan demand is strong and investments are valued only as a liquidity reserve for total expansion."[6] The behaviour of bank liquidity should, therefore, be contra-cyclical and not cylical as advocated by the adherents of the asset-allocation approach to bank fund utilisation. Moreover, since this approach ignores the collateral benefits associated with the loan decisions, although a particular source of supply of funds might seem unremunerative from the point of view of the asset-allocation approach it might in fact be highly remunerative for the bank looking to the total benefits accruing to the bank.

SUGGESTED READINGS

R.I. Robinson, *The Management of Bank Funds*, Second Edition, 1962.
D.R. Hodgman, *Commercial Bank Loan and Investment Policy*, 1963.

QUESTIONS

1. Explain the various items of the asset portfolio and the liabilities portfolio of a commercial bank.
2. Explain the pooled-funds and the asset-allocation theories of bank fund utilisation.

[5] Roland I. Robinson, *The Management of Bank Funds*, Second Edition, 1962, p. 32.
[6] Donald R. Hodgman, *Commercial Bank Loan and Investment Policy*, 1963, p. 73.

21 BANKING SYSTEMS

The development of commercial banks has taken place under different banking systems in different countries. The two principal commercial banking systems that have been in vogue are the unit banking system and the branch banking system. Besides these two principal banking systems after which the commercial banks in most countries of the world have been organised, mention may also be made of the group banking and chain banking systems which have been generally in vogue in the United States of America. There is also the mixed banking system which is commonly found in Germany. Mention will also be made of the correspondent banking system.

GROUP BANKING AND CHAIN BANKING

The origin of these two banking systems may possibly be attributed to the attempt to achieve the economics of large scale operations in the sphere of banking and the desire for power on the part of certain powerful bank owners. Group banking which has expanded phenomenally in the USA since World War II is a legal form of bank organisation in which two[1] or more independently incorporated banks are controlled by a holding company. A holding company is, in turn, a corporate body which owns stock in other corporations. Consequently, a typical banking group consists of 4, 5 or even more separately chartered commercial banks, with the controlling interest in the stock of each bank owned by an independently incorporated non-bank corporation. There are no restrictions as regards the types of banks which may belong to the group - these may be either unit banks or branch banks. Furthermore, group banking may cut across state political boundaries and a holding company may have controlling interest in the banks located in several states in the country.[2]

[1]One-bank holding companies are not included under the lable of 'group banking'. A one-bank holding company is a holding company owning controlling interest in the stock of only a single bank.

[2]It should, however, be noted that in the USA the Bank Holding Company Act of 1956 aimed at severely restricting the acquisition of the new banks across the state boundaries.

Under the group banking system, the ownership and operations of two or more commercial banks are controlled directly or indirectly by a corporation, a business trust or an association. Usually, the group comprises of a 'Key' bank which is controlled by a holding company, and a number of smaller or satellite banks. In the United States of America, the First-American Corporation controlled the group of 24 banks with a total of 421 banking offices in 1959. The Marine Midland Corporation controlled 11 banks having 171 banking offices. Similarly, the Northwest Bank Corporation controlled 77 banks having 100 banking offices. By the end of 1975, there were 276 group systems operating in the USA and these controlled 2,122 banks which operated 8,887 branches with total deposits exceeding $287 billions. The development of group banking in the United States received a great impetus on account of the restrictions placed on the branch banking by the state governments in that country. In a way, group banking may, therefore, be said to be a substitute of branch banking to a considerable degree and many of the advantages of branch banking—economies of scale, better and extensive customer services, greater mobility, efficient management, training programmes, etc.—are also claimed for the group banking. Group banking in the USA has mostly developed in those ten states which restrict the branch banking but allow the bank holding companies.

The chief feature of the group banking system is the centralised management and control of all the group units by a holding company notwithstanding that each bank has got a separate entity. The supporters of the group banking system point out that the chief merit of this banking system lies in economising in the maintenance of large cash reserves. It is not necessary for each banking unit forming a group to keep large cash reserves because such cash reserves may be concentrated in one or few bigger member banks of the group who help the smaller member banks as and when necessary. Furthermore, all members of the group can pool their resources to finance large borrowers. Moreover, advantages of economies of scale in banking operations can be enjoyed by cutting down operating costs, by purchasing supplies in bulk and by improving the efficiency of management. However, all these merits notwithstanding, the group banking system suffers from a number of disadvantages. Firstly, it is difficult to exercise a direct and effective control over the member units. The difficulty of exercising an effective supervision is more serious particularly due to the managements of the holding companies using the groups as vehicle for manipulation and speculation. Secondly, the failure of one member of the group affects all the others. Thirdly, it is difficult to supervise all units simultaneously and the holding company may utilise the surplus reserves of the group for furthering its own economic interests. Under the group banking system, a banking company and a non-banking company may be subsidiaries of the same

holding company. Consequently, the holding company in order to increase its profits may lock the funds of the banking company and the former may suffer losses in the event of the latter coming to grief. Fourthly, neither all the constituents can be examined at once nor are they all commonly subject to the jurisdiction of the same supervisor. Fifthly, the group banking system leads to monopoly, thereby restricting efficiency which grows as a consequence of healthy competition among the banks.

The chain banking system is a variant of the group banking system. This system of banking is very similar to group banking except that the holding company technique is not used with the result that it is difficult to distinguish between the two systems of banking. The main feature of the chain banking system is the control of two or more banking companies by a single person, by members of the same family, by the same group of persons through the ownership of stock, through common membership on the board of directors of the banks (interlocking directorates) or otherwise. This system developed in the United States of America around the mid-nineteenth century and reached the apex of popularity in the twenties of this century. In 1925, there were no less than 133 chains comprising of 933 banks in the United States of America and these were mainly concentrated in California, Washington, New York, Idaho, Georgia and Minnesota. Most chain banking systems are seemingly small, being usually confined to two or three banks, although some chains involve substantially larger number of banks. Consequently, the extent of centralisation shows wide variations. Like group banking, the chain banking has also developed largely as a substitute for branch banking and more than 80 per cent of the chain banks are located in those states in the USA which prohibit branch banking. The chain banking system has more or less the same advantages and disadvantages which are inherent in the group banking system.

Branch Banking

The branch banking system is by far the most important commercial banking system. In this system, a single bank operates in the country through a country-wide network of branches. While the smaller banks may restrict their operations to a certain region of the country, the large-sized banks have their vast country-wide network of branches. The branch banking system which first developed in England is currently in vogue in most countries of the world. In England, bulk of the banking business is controlled by five big banks which are popularly known as the Big Five, *i.e.*, the Midland, the Llyods, the Barclays, the Westminster and the National Provincial.[3] These five banks

[3]The Westminster and the National Provincial have since been merged to form the single National Westminster Bank.

have their branch network spread throughout England and in the overseas territories. The Midland Bank has a network of over 3,500 branches, the Lloyds of over 2,400, the Barclays of over 2,800 and the National Westminster of over 3,600 branches. Apart from England, the commercial banking systems of Australia, Canada, South Africa, India, Pakistan and many other countries follow the branch banking system. In India, more than 90 per cent of the total banking business is handled by the public sector commercial banks comprising of the State Bank of India together with its seven associates and the twenty nationalised commercial banks. The State Bank of India alone has a vast network of over 7,200 branches spread throughout the country and abroad. Its seven associate banks also have over 3,200 branches. The five larger-sized nationalised banks - the Bank of India, the Bank of Baroda, the Central Bank of India, the Punjab National Bank and the United Commercial Bank - have their vastly extended network of branches in the country. The State Bank of India, its subsidiaries and the twenty nationalised banks have over 33,000 branches which are more than 80 per cent of the total of over 45,000 branches of all commercial banks in the country. After the nationalisation of major commercial banks in July 1969; the new branches have been mostly opened in the rural and semi-urban areas in order to cater to the banking needs of the agriculturists and poor people in the country.

In the United States, organisational structure of commercial banking system has experienced great changes with a strong secular trend in favour of branch banking. As a consequence, there has been recorded a significant increase both in the number of banks, operating branches and in the total number of branches. At the beginning of the century in 1900, there were only 87 out of 8,738 banks which had branches and the total number of their branches was only 119. As against this, at the end of 1976 out of 14,457 banks 5,123 banks operated through their 28,634 branch offices.

Advantages and Disadvantages

The branch banking system has many advantages working behind its great popularity and rapid development in the twentieth century. In the first place, under branch banking system due to the pooling of resources of many branches under a single management it is possible for the individual branches to face the crisis of confidence of its depositors. Heavier withdrawals of deposits from one or more branches can be successfully sustained by rushing cash from other branches and head office. In so far as the failure of banks is a contagion, the branch banking system by preventing the collapse of particular banking unit minimises the danger of nationwide collapse of the banking system.

Secondly, under branch banking system particular branches can operate without keeping large idle cash reserves because in emergency the cash can be readily received from other sister branches.

Thirdly, it is possible to acquire the advantages of efficient managerial services through more efficient and proper selection and training of different grades of bank personnels. In other words, the branch banking system enables the different branches to obtain the advantages of the economies of scale in banking operations.

Fourthly, under branch banking system it is possible to diversify loan risks industrially and geographically. On account of this industrial and geographical diversification of loan risks which is possible in the case of branch banking, even when a branch sustains loss due to industrial depression in the locality served by that branch, the loss suffered is recouped out of the profits earned by the other branches.

Fifthly, it is possible to provide cheap and expeditious remittance facilities to the customers because the inter-branch indebtedness can be more easily adjusted compared to the inter-bank indebtedness.

Sixthly, branch banking system promotes greater mobility of capital in the economy because saving facilities become available through countrywide branch network. This also results in the equality of interest rates throughout the country.

Seventhly, it is possible for the branch banks to provide to their clients the services of efficient management backed by large assets.

As against these advantages claimed by the supporters of the branch banking system, the following are the weighty arguments against this banking system.

Firstly, branch banking system results in creating the obligopolistic and monopolistic conditions in the banking industry because only few big banks come to control the industry by opening their branches throughout the country. The tacit collusion between the few big banks renders the entire banks' customer community at their mercy. These banks fix the costs of banking services at a high level while the level of efficiency of bank services is very poor. The customers have no alternative because all bank branches behave alike in the matter of cost and efficiency of banking services. What is worse is that these banks have strong political influence in the government with the result that no effective banking legislation is enacted to exercise an effective check on their anti-social monopolistic activities.

Secondly, the management of the individual branches has no occasion for taking initiative and the staff at the branches handles only the routine banking business according to the circular orders of the head office. The branch manager has almost no authority to respond to the credit requirements of the customers of the locality whom he serves.

Thirdly, since the network of branches of a bank is spread throughout the country and since some of the branches may be and in fact are located at long distances that are connected by poor transport and communication links with the head office, it is difficult for the head office to exercise an effective

control over the functioning of branches. Consequently, cases of serious irregularities and embezzlement of funds have been detected by the head office personnel too late to be remedied. Moreover, the branch staff which is stationed physically far away becomes lax and inefficient because there is little or no fear of any quick and sudden inspections from the head office. Consequently, the customers of branches, particularly of those branches which are located at far and inconvenient distances from the head office, have to bear with the inefficient banking services that are rendered by these branches.

Fourthly, branch banking system promotes delay and red-tapism because the branch managers have to refer each and every loan case to the head office.

Fifthly, since the branch managers are liable to be transferred to other branches and since generally they are transferred every two or three years they are unsympathetic to catering to the local needs. Consequently, the main purpose behind opening the branch is not served.

Sixthly, branch banking system results in huge waste of national resources arising from the establishment of branches by every bank at certain selected large centres. At such centres, there results over-concentration of branches giving rise to unhealthy rivalry and competition among the branches of different rival banks.

Unit Banking

Although branch banking has made rapid strides ever since World War II, the United States of America may be rightly regarded as the home of the unit banking system. While it cannot be denied that the importance of unit banking in the country's banking system has declined, even at the end of 1975 unit banks predominated in number and out of 14,457 total banks as many as 9,334 (over 65%) were unit banks operating through a single office. Under unit banking, single individual banks carry on their business and each bank is a separate entity having its own independent management and board of directors. The area of operation of each bank is restricted to a particular locality. Consequently, the scale of operations of individual banks under unit banking system is usually smaller compared with the area of operation under the branch banking system.

Advantages and Disadvantages

The main advantage of the unit banking system is that being highly localised in their operations, the individual banks are more responsive to the needs of the localities served by them. The manager and other staff of the bank strive to be popular with their customers who are largely drawn from the local community by providing them cheap and efficient banking services. Furthermore, since under unit banking system individual banks are small in

size and their operations are carried on a small scale, they are free from the losses that result from the diseconomics of large scale operations in the field of banking.

As against these advantages, unit banking system is weak in facing the financial crises. Individual banks being small, they find it difficult to meet the sudden rush of deposit withdrawals. In the USA during the great debacle of 1933 many unit banks failed as they could not weather the storm of sudden rush of deposit withdrawals. The unit banks also find it difficult to employ high-paid well trained managers because they cannot also afford to have their own school to train their staff. Their own resources being small, these banks find it beyond their capacity to grant large loans to their customers. As a result of these and some other weighty disadvantages of unit banking, even in the USA branch banking has been permitted by law to a certain extent. While some states allow state-wide branch banking, others permit limited area branch banking. The Bank of America — the biggest and the oldest commercial bank in the USA — has a network of over 500 branches spread throughout the State of California.

Correspondent Banking

Correspondent banking system which is highly developed in the United States provides a mechanism which knits together the unit banking system in the country. Correspondent banking consists, basically, in some banks holding demand deposits in other banks just as individuals and business firms hold. In general, small banks serving small communities place deposits in nearby city banks which, in turn, hold deposits in the giant banks located in giant cities like New York, Chicago, San Francisco, etc. and these giant banks hold reciprocal deposits with one another. Consequently, a web network of banking interrelationships is created whereby ultimately every bank in the country is connected with every other bank. In this way, in a unit banking dominated highly developed nation that USA is, nationwide payments mechanism becomes operative and a cheque drawn on a bank in Miami, Florida is easily cashed in Seattle, Washington.

In actual practice, the correspondent banking system is more complicated than this description since small up-country banks typically maintain not one but five or six correspondent relationships and large banks may have 30 or 40 correspondent relationships. The small bank in the small community which holds deposits with the city bank is the *respondent* bank while the city bank holding the deposits for the small bank is the *correspondent* bank. The correspondent banking system is mutually advantageous both for the *respondent* and for their *correspondent* banks. The correspondent banks perform the two important services of outside cheque clearing and loan participation for their respondent banks while they benefit from the deposit funds of their respondent banks.

Mixed Banking

Mixed banking system refers to that banking system under which the commercial banks make long-term loans to industry. In England, commercial banks are mainly concerned with supplying the short-term credit requirements of trade and commerce. Generally, the commercial banks refrain from supplying the long-term credit to the industry. In short, the British commercial banking system keeps aloof from financing the long-term credit requirements of industries. As against this British trend, the commercial banks in Germany, Belgium, Hungary and the Netherlands have greatly assisted in the industrial development of these countries by giving long-term loans to industries. In mixed banking, the commercial banks promote the industrialisation of their country and come forward to provide the initial capital to the newly started industries. Alongside the task of providing capital to industries, mixed banks also perform the functions of deposit banks. To the extent commercial banks in India have come forward to provide long-term capital to small and medium-sized industries they can be said to perform the functions of mixed banks.

The development of mixed banking in Germany has been due to several historical reasons. The scarcity of capital and absence of suitable entrepreneurs in Germany led the commercial banks to collaborate closely with industries in the interest of country's rapid industrial development. Due to the shortage of capital which might be due to the absence of mobilisation of savings, industries in Germany became dependent upon the commercial banks for the supply of necessary capital funds. Consequently, commercial banks participated in a big way in providing capital to industries both by granting long-term loans and by floating debentures of the joint-stock companies.

Advantages and Disadvantages

An important advantage of mixed banking is that it enables the banks to become active partners in the important task of country's economic development by promoting the development of industries in the country. Banks can help the indusries by either underwriting their equity and debenture issues or by granting them advances in anticipation of such issues in future. Banks can also providethe industries sound financial advice about the outlook in the investment market. Furthermore, where the banks command large liquid resources it would be in the interest of these banks to invest in the long-term industrial securities and earn higher interest income.

The disadvantages of mixed banking system come to surface in times of depression when industrial losses become usual. A large part of capital resources of a mixed bank becomes locked up in the long-term financing of industries. Consequently, industrial losses result in the failure of banks

During depression, the prices of shares and other industrial securities depreciate. Consequently, a considerable portion of commercial banks' asset portfolio disappears through the loss of value. This was what happened in the USA, France, Germany, Japan and other countries during the great depression of the thirties when many banks failed as they were placed in a hopelessly unliquid position and they had to close their doors. The activities of the American banks in stock and real estate market and the participation of the Indian banks and the Austrian Credit-Anstalt in recklessly financing the industries clearly demonstrate the evils of the mixed banking system.

SUGGESTED READINGS

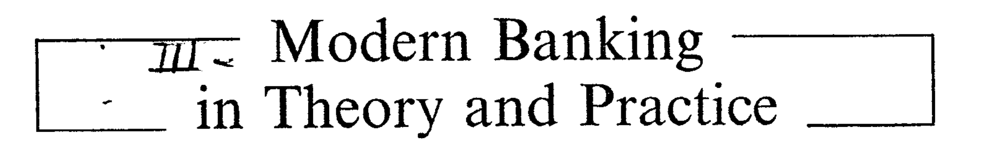
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QUESTIONS

1. Discuss the relative advantages and disadvantages of unit and branch banking systems.
2. What is mixed banking ? Discuss the merits and demerits of this banking system.
3. Describe the salient features of the chain banking and group banking systems.



Modern Banking in Theory and Practice

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1 The Modern Banking Firm

INTRODUCTION

The purpose of this chapter is to examine the theoretical reasons for why banks exist, to consider modern banking in the context of the traditional model, and to review key statistics on banking activities in the industrialised economies. The chapter is organised as follows. First, there is a review of the traditional theory of banking, addressing the question of why banks exist. The role of banks as financial intermediaries is explored in the next section, which also discusses the banks' organisation, drawing on the theories used to explain the structure of profit maximising firms. There is then a review of the diversification of banking activities, which is followed by a consideration of whether banks will disappear in the next century. The chapter goes on to look at how bank performance is measured, and considers the results of relevant studies. Finally, this chapter presents a cocktail of stylised figures on banks in industrialised countries, with a view to providing readers with an overview of modern banks as the century draws to a close.

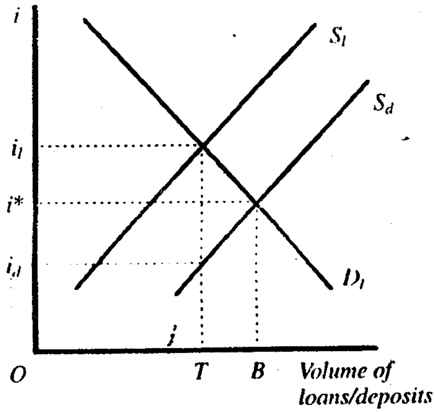
WHY DO BANKS EXIST? THE TRADITIONAL THEORY OF BANKING

To answer the question, "Why do banks exist?", it is useful to begin with a definition of a bank, using a very simple model of the traditional role banks have played in the economy, acting as *intermediaries* between depositors and borrowers.

Banks are normally distinguished from other types of financial firms in that they provide deposit and loan products. The deposit products pay out money on demand, or after some notice. Thus, banks are in the business of managing liabilities, and, in the process, banks also lend money, thereby creating bank assets. Alternatively, one can argue banks are in the business of managing assets, which are funded by deposits or other liabilities. As is demonstrated in the next section, the intermediation function normally results in banks offering a payments service to their customers.

In modern banking systems, there exists a whole range of specialist banks, which focus on niche markets, and generalist banks, which offer a wide range of banking and other financial products, as diverse as deposit accounts, loan products, real estate services, stockbroking, and life assurance. For example, there are firms which act as "private bankers", accepting deposits from high net worth individuals, and investing in a broad range of financial assets. Merchant banks in the UK and investment banks in the USA have a relatively small deposit base but access a wide range of funds, from the equity, bond, and syndicated loan markets. Commercial banking, an American term, consists of wholesale and retail banking activities, but not investment banking. Universal banks, the norm in Germany, combine investment, wholesale, and retail banking services, and offer non-banking financial products, such as insurance. However, the differences in the functions of banks do not alter the fundamental definition of banks, that they perform an intermediary role in an economy, by accepting deposits and making loans.

To illustrate the traditional intermediary function of a bank, consider Figure 1, a simple model of the credit market. On the vertical axis is the rate of interest; the volume of deposits/loans is on the horizontal axis. Assume the interest rate is *exogenously* given (for example, by government regulation, or a market rate is determined on the international markets, independent of the actions of individual banks). In this case, the bank faces an upward sloping supply of deposits curve (S_d). There is also the bank's supply of loans curve (S_l) showing that the bank will offer more loans as interest rates rise, though this curve may be discontinuous at one point because of adverse selection (as



i_l - i_d: Bank interest differential between the loan rate (i_l) and the deposit rate (i_d), which covers the cost of the bank's intermediation.

S_d: Supply of deposits curve

S_l: Supply of loans curve

D_l: Demand for loans curve

OT: Volume of loans supplied by customers

I^*: Market-clearing interest rate in the absence of intermediation costs

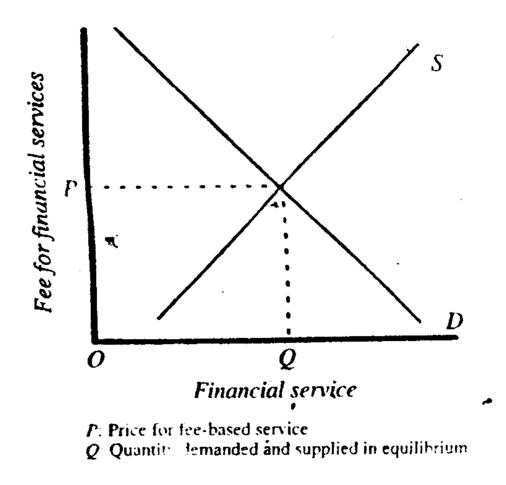
Figure 1 Simple model of the banking firm

interest rates rise, riskier borrowers apply for loans)[1] and adverse incentives (higher interest rates encourage borrowers to undertake riskier activities). D_l represents the demand for loans, which falls as interest rates increase.

In equilibrium, the bank pays a deposit rate of i_d and charges a loan rate of i_l. The volume of deposits and loans is *OT*, and *OT* loans are supplied. The interest margin is equal to $i_l - i_d$ and must cover the institution's non-deposit costs, the cost of capital, the risk premium charged on loans, tax payments, and the institution's profits. Interest margins should narrow, the greater is the competition for loans.

In the absence of intermediation costs, i^* is the market-clearing interest rate; the interest rate that would prevail if there were no costs associated with bringing borrower and lender together. The volume of business would rise to *OB*. But there are intermediation costs; for example, in the absence of a bank, the lender would have to estimate the riskiness of the borrower and charge the premium plus the costs of the risk assessment. Provided a bank can offer the lowest cost of intermediation, its services will be sought after. However, a bank may lose traditional sources of business, such as lending to highly rated corporates, because these corporations find that they can raise funds by issuing bonds, and the cost of borrowing by bond issue is cheaper than borrowing from a bank.

Figure 1 does not allow for the other bank activities most modern banks undertake, such as off-balance sheet business and fee-earning business. However, the same principle applies. Provided the bank can offer these new services at a lower cost than that which two parties incur if they arrange the deal themselves, there is a reason for the existence of a bank. On the other hand, banks will not offer banking services unless they are profitable. Figure 2 illustrates how banks supply fee-based services. The demand and supply curves



P: Price for fee-based service
Q: Quantity demanded and supplied in equilibrium

Figure 2 Fee-based financial services

[1]The problem of adverse selection is discussed in more detail below.

are for a fee-based product, which can be anything from deposit box facilities to arranging a syndicated loan. The demand and supply curves are like any other product, and the market-clearing price, P, is determined by the intersection of the demand and supply curves. The degree of competition in the market will determine how competitive the price is. The microeconomic aspects of competition in banking are discussed in Chapter 4.

To summarise, all modern banks act as intermediaries between borrowers and lenders, but they may do so in a variety of different ways, from the traditional function of taking deposits and lending a percentage of these deposits, to fee-based financial services. In the next section, the question of why firms play an intermediary role is considered.

BANKS AND FINANCIAL INTERMEDIATION

The Importance of the Intermediary Function

In the previous section, a definition of a bank was provided and the intermediary function of banks explained. However, there remains the question: why is it that we observe profit-maximising firms offering the intermediary function? Why can't borrowers and lenders come together, without an intermediary? The answer is twofold. First, the presence of information costs undermines the ability of a potential lender to find the most appropriate borrower, in the absence of intermediation. Second, borrowers and lenders have different liquidity preferences.

There are four types of information costs. *Search costs* will exist whenever there is a contract between two parties. Transactors and transactees have to search out, obtain information about, select, meet, and negotiate with other parties to a contract. When it comes to bringing borrowers and lenders together, the individual parties concerned would have to incur these *costs* if a bank did not. *Verification costs* also exist because before money is loaned out, lenders must verify the accuracy of information being provided by the borrower. Asymmetry of information between borrower and lender will give rise to a problem of *adverse selection*, which will cause inefficient allocation in markets. Suppose a borrower has more information than the lender on his/her ability to repay a loan. The presence of adverse selection means a bank cannot just raise interest rates to compensate for the riskiness of a borrower, because borrowers who know they are likely to default on the loan will be content to negotiate a higher rate. Jaffee and Russell (1976), Leland and Pyle (1977), and Stiglitz and Weiss (1981) consider adverse selection as it applies to banking.*

Monitoring costs are also created because once a loan is negotiated, the activities of the borrower must be monitored, to ensure it is possible to

*For a general treatment of adverse selection, see Akerloff (1970).

distinguish between legitimate and unsound reasons for a borrower missing, say, a payment date. Diamond (1984) elaborates on this theme.

In any contract, either of the parties to the contract may breach its conditions, and the injured party has to take action to either enforce the contract or seek compensation in the event of breach of contract. Thus, contracts carry *enforcement costs*. When money is loaned by one party to another, it is typically the borrower who is unable to meet the commitments as promised. For example, a borrower may refuse to adhere to an agreed schedule of debt repayments. If it is not possible to renegotiate the loan conditions, the lender will have to take action to recover the loan.

These four types of information costs will be incurred by any lender. If a bank can, through its intermediary function, allow lenders (depositors) to offer loans with lower associated information costs than they would incur if they tried to negotiate with a borrower directly, then individuals will choose to make deposits at a bank. Borrowers will seek out banks if the search (and possibly enforcement) costs associated with negotiating a loan are lower than if the borrower sought out an individual.

Unlike an individual lender, the bank may enjoy informational economies of scope. *Economies of scope* are said to exist when two or more products can be jointly produced at a lower cost than if the same products are produced individually.* *Informational economies of scope in lending* mean banks can pool a portfolio of assets which have a lower default risk but the same expected return than what would be possible if depositors had tried to lend funds directly. Banks may be able to gain informational economies of scope in lending decisions because they have access to privileged information when making a lending decision; banks can also obtain information on future borrowers because they hold accounts at the bank. It is often not possible to bundle up and sell this information, so banks use it internally, to increase the size of their loan portfolio.

Banks design and implement loan contracts to improve the prospects of the loan being repaid. For example, a bank might write restrictive covenants into the loan contract to give it some control over the firm's management. In addition, it will demand collateral as insurance for unforeseen developments after the loan contract is agreed.

Differences in liquidity preferences also explain why banks exist. Banks transform illiquid assets into liquid liabilities. It is typical for firms in the business sector to want to borrow funds and either repay them in line with the expected returns of an investment project, which may not be realised for several years after the investment. By lending funds, savers are actually agreeing to forgo present consumption in favour of consumption at some date in the future. Either the borrowing or the lending (depositor) parties may change their minds because of unexpected events. If banks are able to pool a large number of borrowers and savers, it is likely both parties are going to be

*In the business strategy literature the term "synergy" is often used instead of "economies of scope". For a detailed discussion of this point, see Chapter 4

satisfied, because the banks have the necessary liquidity. Thus, *liquidity* is an important service a bank offers to its customers, and if it can offer this service at a lower cost than what would be incurred in the absence of bank intermediation, borrowers and lenders alike will demand the services of the bank. It is this aspect of banking which differentiates banks from other financial firms offering near bank and non-bank financial services, such as unit trusts, insurance, and real estate services. It also explains why banks are singled out for prudential regulation; the claims on a bank function as money, hence there is a public goods element to the services banks offer.

There is a link between the payments (more generally, liquidity) service a bank offers and its lending, even though the latter activity means banks are holding what are largely illiquid assets in their portfolios. Depositors earn a rate of return on their deposits, but have access to liquidity. Loans give borrowers more liquidity. Most customers will hold deposits in surplus (unless offered full overdraft facilities) because the cost of maintaining a balance which just matches payments demands is too high. These transaction costs mean most customers will only demand a fraction of their deposits at a given point in time. For the bank, which pools these surplus funds, there is an opportunity for profit through *fractional reserve lending*, that is, lending out money at an interest rate which is higher than what the bank pays on the deposit, after allowing for the riskiness of the loan and the cost of intermediation. Therefore, bank intermediation and payments services are inextricably linked. Banks can profit by combining payment and intermediation services to their customers, since the payment function of money overlaps with the store of value function of money. Additionally, banks achieve a reduction in the riskiness of a loan portfolio through risk pooling.

Even potential borrowers are likely to keep deposits at a bank if they think they are less likely to be credit-rationed when they ask for a loan. Firms may also be attracted to bank debt finance over other types of finance because it signals to the market that the customer is creditworthy, enabling the firm to gain cheap sources of funds from other sources (Fama, 1985). A related contribution was made by Stiglitz and Weiss (1988), who argued that a loan made to a firm by a reputable bank was a signal to others that the firm is likely to stay in business, encouraging customers and suppliers to enter into long-term relationships with the firm.

Lewis (1991) argued that in financial markets, information and liquidity problems are overcome either by organised markets, where contracts and trading are relatively standardised, or by informal markets which are created by or exist within financial firms. For example, stockbroking firms operate in organised markets by making markets in certain stocks; banks as lenders operate in informal markets, because the loan decision-making process is internal to the bank organisation.

Thus, one may also think of bank products as a collection of contracts. Traditionally, banks offered contracts which differ from those which would be exchanged on organised markets. For example, because banks "borrow short and lend long", firms can negotiate loans for longer periods while savers

can lend for shorter periods than would be available on organised markets. However, most modern banks are also active in organised markets, through, for example, off-balance sheet activity (see Chapter 5), or because they own a stockbroking subsidiary.

The Organisational Structure of a Bank

In the previous sections, the intermediary and payments functions identified the reasons why banks exist, but another question one needs to address is why a bank exhibits the organisational structure it does. Any profit-maximising bank shares the same objective as any other firm; so this question is best answered by drawing on the traditional models which explain firms' existence. Coase (1937), in his classic analysis, argued that the firm acted as an alternative to market transactions, as a way of organising economic activity, because some procedures are more efficiently organised by "command" (for example, assigning tasks to workers and coordinating the work) than reliance on market price. In these situations, it is more profitable to use a firm structure than to rely on market forces.

The existence of the "traditional" bank, which intermediates between borrower and lender, and which offers a payments service to its customers, fits in well with the Coase theory. The intermediary and liquidity functions of a bank are more efficiently carried out by a command organisational structure, because loans and deposits are internal to a bank. Such a structure is also efficient if banks are participating in organised markets. These ideas were developed and extended by Alchian and Demsetz (1972), who emphasised the monitoring role of the firm and its creation of incentive structures. Williamson (1980) argued that under conditions of uncertainty, a firm could economise on the costs of outside contracts.

A *principal–agent* problem exists within any firm because both internally and externally, its activities are a collection of contracts between principals and agents. The *principal–agent* problem arises if the principal (for example, the depositor) delegates some authority to the agent (for example, the bank) to act on his/her behalf. But the agent has more information about his/her own characteristics than the principal. So the principal may not get exactly what he/she wants because the task has been delegated to the bank. For depositors, customers purchasing fee-based services from the bank, and a bank's shareholders, there is the question of who monitors the bank. This is a classic problem between principal and agent; customers delegate some control over their financial affairs to an agent, who may lack the incentives to act in customers' best interests, and can plead bad luck when outcomes are poor. The principal–agent theory also explains the nature of contracts between shareholders of a bank (principal) and its management (agent), the bank (principal) and its officers (agent), and the bank (principal) and its debtors (agent) * Incentive problems are created because the principal cannot observe

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*Readers are referred to Bhattacharya and Pfleiderer (1985), Diamond (1984) and Rees (1985)

the agent's actions (for example, bank shareholders and management) or the principal has inferior information compared to the agent (for example, the bank manager and the borrower).

Differences in information held by principal and agent can give rise to *adverse selection*, if an agent, the firm, borrows money from a bank, the principal. *Moral hazard* is another potential problem if the principal, the depositor, invests money in the agent, a bank. Moral hazard arises whenever, as a result of entering into a contract, the incentives of the two parties change, such that the riskiness of the contract is altered. There are several reasons why depositors do not monitor bank activities closely enough. First, the depositor's cost of monitoring the bank becomes very small, the larger and more diversified is the portfolio of loans. Though there will always be loan losses (they are inherent in the nature of the contract), the pooling of loans will mean the variability of losses approaches zero.* Second, deposit insurance schemes reduce the incentive of depositors to monitor the bank. If a bank can be reasonably certain a depositor either cannot or chooses not to monitor the bank's activities once the deposit is made, then the nature of the contract is altered, and the bank may undertake to invest in more risky assets than it would in the presence of close monitoring. Shareholders do have an incentive to monitor the bank's behaviour, to ensure an acceptable rate of return on the investment. Depositors may benefit from this monitoring. But shareholders also face agency problems if managerial utility functions are such that managerial action conflicts with shareholder interest.

Relationship banking can help to minimise the principal–agent and adverse selection problems arising between a lending bank and borrowers. Lender and borrower have a *relational contract*: an understanding between both parties that it might be some time before certain characteristics related to the contract can be observed. The customer establishes a relationship with a bank whereby, over an extended period of time, the customer uses the bank for its financial needs. For example, a corporate borrower may come up with a brand new production technique, the fruits of which may not be realised until some years later. The bank has to decide whether the plan is worth the credit risk. If the two have had a long-standing relationship where the individual or firm has never defaulted or run into serious financial difficulties, the bank is better able to assess the riskiness of the new venture, and therefore, more likely to enter into a loan agreement. Even though a clause in the loan agreement will mean the bank can recall the loan at any time, the borrower knows that would be highly unlikely, because of the nature of the relationship. A relational contract improves information flows between the parties, and allows the lender to gain specific knowledge about the borrower. It also allows for flexibility of response, should there be any unforeseen events.

An arm's-length *transactional* or *classical contract* is at the other extreme, and gives rise to *transactional banking* –where many banks compete for the customer's business and the customer shops around for several banks. Little in

the way of relationship exists between the two parties both sides stick to the terms of the contract. In banking, there is more scope for borrower opportunism in a relational contract because of the information advantage the borrower normally has. The Jürgen Schneider Deutsche Bank case* is a timely example of relationship banking gone wrong. A transactional contract deters opportunistic behaviour. Another advantage is that the contract is negotiated, so both parties can bargain over the terms. On the other hand, information flows will be significantly curtailed, and the detailed nature of the contract reduces the scope for flexibility.

Relationship banking is most evident in countries such as Japan and Germany where there are cross-shareholdings between banks and non-financial corporations. In other countries, such as the USA and the UK, classical contracts are more evident, though there is a high variance in the degree of relationship banking depending on whether it is in or out of vogue. In Japan and Germany, the close bank–corporate relationships were, in the 1970s and 1980s, praised as one of the key reasons for the success of these economies. But in the 1990s, global financial deregulation has undermined relationship banking, because it has increased the number of methods for raising corporate finance, and the number of players in the market. In Japan, the close relationship enjoyed by groups of firms (including a bank) is being undermined because Japanese banks suffered a drastic reduction in the market value of their equity portfolios due to the prolonged decline in the stock market after 1990.

DIVERSIFICATION OF BANKING ACTIVITIES

Modern banks are typically either highly specialised in a narrow range of activities, or they offer a broad range of financial services, some of which, at first sight, do not appear to conform to the principal reasons why banks exist, discussed above. It is this relatively recent development which has given rise to growing speculation that the future of banks is in jeopardy, as other types of financial firms increasingly engage in non-banking financial activities. A brief discussion of more recent financial activities of banks illustrates their consistency with the basic principles of banking, outlined earlier.

International and Multinational Banking

Many banks in OECD countries engage in international banking activities. To the extent that these activities are international extensions of the intermediary and payment functions discussed above, the presence of international banks does not contradict the basic model of banking. However, international bank-

*Mr Schneider was a long-standing corporate customer of Deutsche Bank, having built up a property development empire. He successfully hid growing problems in the firm and in 1994 suddenly absconded, leaving a mountain of debts. Mr Schneider and his wife are being held in a Miami jail, awaiting extradition to Germany on fraud charges.

ing is such an important aspect of modern banking that a separate chapter of this book, Chapter 2, is devoted to its principles and practice.

Financial Conglomerates

Increasingly, banks are part of financial conglomerates that are active in both informal markets and in organised financial markets. The existence of financial conglomerates does not alter the fundamental reasons of why banks exist. Like many profit-maximising organisations, banks may expand into other, non-banking financial activities as part of an overall strategy to maximise profits and shareholder value-added. (Readers can find a more extensive discussion of financial conglomerates in Chapter 6.)

Non-bank Financial Services

Banks don't just take loans and offer deposits; they typically offer a range of financial services to customers, including unit trusts, stockbroking facilities, insurance policies, pension funds, asset management, or real estate. Non-bank financial services are offered by banks for two reasons. First, a bank provides intermediary and liquidity services to its borrowers and depositors, thereby reducing the financing costs for these customers, compared to the costs if they were to do it themselves. If a bundle of services is demanded by the customer (because it is cheaper to obtain it in this way), then banks may be able to develop a competitive advantage, and profit from offering these services. Second, buying a basket of financial services from banks helps customers to overcome information asymmetries which can make it difficult to judge quality. For example, if a bank earns a reputation from its intermediary role, it can be used to market other financial services. In this way, banks become "marketing intermediaries" (Lewis, 1991).

Wholesale and Retail Banking

Wholesale banking typically involves a small number of very large customers such as large corporates and governments, whereas retail banking consists of a large number of small customers who consume personal banking and small business services. Wholesale banking is largely *interbank*: banks use the interbank markets to borrow from or lend to other banks, to participate in large bond issues, and to engage in syndicated lending. Retail banking is largely *intrabank*: the bank itself makes many small loans. Put another way, in retail banking, risk-pooling takes place within the bank, while in wholesale banking it occurs outside the firm. Improved information flows and global integration constitutes a major challenge to wholesale banking. Retail banking is threatened by new process technologies. These points are discussed in turn, below.

Even though the sophistication of some wholesale banking customers might lead one to think they do not need banking services, the reality is quite different. To see why banks profit from intermediary and payment functions offered

to wholesale customers, it is important to understand why large corporate bank customers tend to concentrate their loans and deposits with one or two banks, and why depositors do not effectively insure themselves against liquidity needs by pooling them with other groups of depositors, through a wholesale market. The answer is twofold. First, correspondent banking and interbank relationships signal that banks trust each other, enabling them to transact with each other more cheaply, thereby reducing costs for customers. Second, it is cheaper for banks to delegate the task of evaluating and monitoring a borrowing firm to one or more group leaders than it is to have every bank conduct the monitoring. Loan syndicates make it possible for one bank to act as lead lender, specialising in one type of lending operation.

American *investment banks* and British *merchant banks* are good examples of financial institutions that engage in wholesale banking activities. US investment banks began as underwriters of corporate and government securities issues. The bank would purchase the securities and sell them on to final investors. Modern investment banks can be described as finance wholesalers, engaged in underwriting, market making, consultancy, mergers and acquisitions, and fund management. The traditional function of the merchant bank was to finance trade by charging a fee to guarantee (or "accept") merchants' bills of exchange. Over time, this function evolved into one of more general underwriting, and initiating or arranging financial transactions. Big Bang (in 1986) gave merchant banks the opportunity to expand into market making, mergers and acquisitions, and dealing in securities on behalf of investors. Today, many UK merchant banks perform functions similar to their US cousins, the investment banks, though they are not restricted to these activities by statutory regulations such as the Glass–Steagall Act (see Chapter 6). The terms "merchant" and "investment" banks are now used interchangeably.

Financial market reforms, the increasing ease with which financial instruments are traded, the use of derivatives to improve risk management, and communications technology which enhances global information flows, have contributed to the integration of global financial markets over the last two decades. The challenge for wholesale banks is to maintain a competitive advantage as intermediaries in global finance, though some might survive as financial boutiques. This point is supported by recent takeovers of relatively small British merchant banks. In 1995, Barings collapsed and was later purchased by ING Bank, S. G. Warburg was purchased by Swiss Bank Corporation, and Kleinwort Benson was taken over by Dresdner Bank. In 1989, Deutsche Bank bought Morgan Grenfell.

The retail banking sector has witnessed rapid *process innovation*, where new technology has altered the way key tasks are performed. Most of the jobs traditionally assigned to the bank cashier (teller) can now be done more cheaply by a machine. The cost of an ATM transaction is approximately one-quarter the cost of a cashier transaction. In the UK, the number of ATMs in service has risen from 568 in 1975 to 15 208 in 1995, a trend observed in all the industrialised countries. Likewise, telephone banking is growing in popularity. In the UK, First Direct (a wholly owned subsidiary of Midland

Bank) has captured about 700 000 customers from other banks. First Direct claim they handle 375 accounts per staff member, compared to roughly 100 per staff member in conventional British banks. Correspondingly, many of the clerical jobs in banking have disappeared. In Britain, it is estimated 70 000 banking jobs were lost between 1990 and 1995. Branches have also been closed at a rapid rate. More recent technological developments likely to prove popular are automated branches and home banking. Automatic branches permit the customer to choose when to go to the bank, making short banking hours a thing of the past. Compared to the ATM or even telephone banking, the customer has access to more services and can, via video-link, obtain a full banking service. Spain already has a network of automated branches; in the US, they are growing in popularity. Home banking, which has been slow to get off the ground, should experience a leap in demand once the majority of households are connected to the internet.

An even greater threat to branch banking is the development of electronic cash. An interim development is the advanced smart card. While debit card networks (retailers accept debit cards that allow transactions to be paid into and debited from a bank account) have replaced the need for cheques, smart cards mean customers will not need to carry cash for small transactions. Early smart cards, such as those widely available in France, had a computer chip which stored information about the customer. But current research is focused on a chip that will substitute for cash, and will dramatically alter the payments system for small cash transactions. National Westminster Bank, Midland Bank, and British Telecom jointly own Mondex, a card with units of value stored on it. Mondex is due to be operational across Britain in 1996. Mondex has sold rights of use to Hong Kong and Shanghai Bank in Asia, and has a deal with two large Canadian banks. Mastercard and Visa are about to introduce chip-based cards.

In the United States, some American regional banks have taken the first step to offering banking services on the internet. Regulators are to allow Security First Network Bank to offer *virtual banking* on the internet. Non-banks have also been making moves into internet financial services, but, to date, none has announced plans to offer the core banking products, intermediation and liquidity services.

Internet e-cash will replace many debit, credit, and smart card transactions. Initially, e-cash will permit instant credit or debiting of accounts for a transaction negotiated on the internet. It even has the potential of cutting out the intermediary. Before e-cash is introduced, however, the problem of verification on the internet must be resolved, because there is no way of distinguishing between real money and a digital forgery. One possible solution is a hidden signature to accompany each transaction. Two firms, Digicash in the Netherlands, and a US firm, Cyber-cash, are in the early stages of developing a system but in both cases, a third party, the intermediary, has to provide collateral and settlement for the e-cash. Thus, e-cash is ready to act as a medium of exchange, but not as a store of value. If e-cash has to be converted into traditional money to realise its value, the role of the intermediary changes, but does not disappear. While e-cash performs only an exchange function,

there is still a role for banks, money markets, and currency markets. Ultimately, however, e-cash could become a global currency, issued by governments and private firms alike. These changes will, in time, render branches, ATM machines or smart cards obsolete, though past experience suggests customers are slow to accept new money transmission services. The disappearance of branches alone will transform retail banking, because the sector will lose one of its key entry barriers. If, as expected, governments impose sovereign control over the issue of money, be it sterling, US dollars, or e-cash, an intermediary function will remain. Banks with a competitive advantage in an e-cash world will continue to exist.

Universal Banking

The concept of *universal banking* refers to the provision of most or all financial services under a single, largely unified banking structure. Financial activities may include:

- intermediation;
- trading of financial instruments, foreign exchange, and their derivatives;
- underwriting new debt and equity issues;
- brokerage;
- corporate advisory services, including mergers and acquisitions advice;
- investment management;
- insurance;
- holding equity of non-financial firms in the bank's portfolio.

Saunders and Walters (1994) identified four different types of universal banking:

- *The fully integrated universal bank*: supplies the complete range of financial services from one institutional entity.
- *The partially integrated financial conglomerate*: able to supply the services listed above, but several of these (for example, mortgage banking, leasing, and insurance) are provided through wholly-owned or partially owned subsidiaries.
- *The bank subsidiary structure*: the bank focuses essentially on commercial banking and other functions, including investment banking and insurance, which are carried out through legally separate subsidiaries of the bank.
- *The bank holding company structure*: a financial holding company owns both banking (and in some countries, non-banking) subsidiaries that are legally separate and individually capitalised, in so far as financial activities other than "banking" are permitted by law. Internal or regulatory concerns about the institutional safety and soundness or conflicts of interest may give rise to Chinese walls and firewalls (see Chapter 6). The holding company often owns non-financial firms, or the holding company itself may be an industrial concern.

In some countries (Germany, Switzerland, the Netherlands, Sweden, Austria, Belgium, and Luxembourg), banks hold equity stakes in non-financial corporations. Not only does a bank provide these firms with commercial and investment banking services, it will also have board seats and perform a critical role in corporate governance. In Japan, the norm is a cluster (*keiretsu*) of banks, financial firms and non-financial firms, with cross-shareholdings, shared directorships, close supplier–customer relationships, and an emphasis on cooperation within the cluster. In both systems, the public holds shares in both industrial companies and banks. Markets for corporate equity and debt tend to be under-developed. Canada, France and the UK are examples of countries where certain features of universal banking prevail. The European Union banking laws (see Chapter 6) were drawn up on the assumption that universal banking would be the relevant model.

Off-Balance Sheet Banking and Securitisation

Off-balance sheet (OBS) instruments are contingent commitments or contracts which generate income for a bank but do not appear as assets or liabilities on the traditional bank balance sheet. They can range from stand-by letters of credit to complex derivatives, such as swaptions. For a detailed discussion of off-balance sheet activities, readers are referred to Chapter 5. Banks enter the OBS business because they believe it will enhance their profitability, for different reasons. First, OBS instruments generate fee income, and are therefore typical of the financial product illustrated in Figure 2. Second, these instruments may improve a bank's risk management techniques, thereby enhancing profitability and shareholder value added. For example, if a bank markets its own unit trust (mutual fund), it will sell shares in a diversified asset pool; the portfolio is managed by the bank, but the assets are not owned or backed by the bank. Or a bank can pool and sell mortgage assets, thereby moving the assets off-balance sheet. Third, to the extent that regulators focus on bank balance sheets, OBS instruments, in some cases, may make it easier for a bank to meet capital standards. These instruments may also assist the bank in avoiding regulatory taxes which stem from reserve requirements and deposit insurance levies.

Securitisation is the process whereby traditional bank assets (for example, mortgages) are sold by a bank to a trust or corporation, which in turn sells the assets as securities. Thus, while the process may commence in an informal market (usually with a bank locating borrowers), the traditional functions related to the loan asset are unbundled so that they can be marketed as securities on a formal market. Securitisation is discussed in detail in Chapter 5.

The growth of off-balance sheet and securitisation activities is not inconsistent with the basic principles of banking outlined earlier. The growth of the derivatives and securities markets has expanded the intermediary role of banks to one where they act as *intermediaries in risk management*.*

[illegible] is discussed in more detail in Chapter 5.

WILL BANKS DISAPPEAR?

A recent popular view is that the contribution of banks to the economy will diminish significantly, or even that banks will disappear by early in the next century, as the traditional intermediary and payment functions of the bank decline in the face of new financial instruments and technology, such as off-balance sheet products and securitisation, services which can be produced by non-bank financial firms. As noted in the previous section, it is just a matter of time before secure *e-cash* is available on the internet, enabling users to shop and purchase goods and services on e-mail. The critical question is whether the new technology will allow the global risk-pooling role played by the banks to be taken over by individuals. This scenario is only possible if agents are able to arrange loans, deposits, and payments facilities with each other more cheaply than the banks can. Even with the most advanced technology, the chances are slim, because of the time and cost of collecting the information to decide where the optimal place for a deposit is, to pool risks with other depositors, or to locate the most suitable loan(s). Provided banks can maintain a competitive advantage in the supply of intermediation services once the majority of households and firms have access to the information superhighway, the traditional core product they offer is unlikely to disappear. Additionally, many banks will expand into non-bank financial services, again, because of competitive advantage. Bank functions will evolve over time, but this is a phenomenon common to firms in most sectors of the economy.

It is certainly true that non-banks have begun to offer financial services. For example, General Electric Capital (GE Capital), is the financial services subsidiary of General Electric. It has the largest issuance of commercial paper in the USA, supplies credit card facilities to department stores, is the largest insurer of private homes, and for nine years owned a securities firm, Kidder Peabody. In the UK, Marks & Spencer plc, well known for its retail clothes, food, and home furnishings, began in the 1980s to offer a selection of financial services, starting with an in-house credit card business and expanding into personal loans, unit trusts, personal equity plans, and, from 1995, insurance and pensions. Marks and Spencer is able to fund its asset requirements because it is top-rated by key rating agencies. However, it is noteworthy that these non-bank firms have chosen to enter niche markets, which do not threaten the intermediary/payments function offered by banks. Furthermore, there have been examples of failed entry into these markets. Sears Roebuck was one of the first large retail firms to offer financial services, but it has recently scaled back its activities. Westinghouse wound up its credit arm after it lost nearly $1 billion in property loans. In 1994, GE sold its investment bank, Kidder Peabody, after losses on the mortgage-backed securities portfolio, and dubious trading activities in government bonds. Under the terms of agreement to sell Kidder Peabody to PaineWebber, another investment bank, GE received $90 million for its investment bank; it had paid $600 million for it in 1986.

The survival of well-known banking firms will depend on whether they are able to adapt to offer the most efficient intermediary and payments service,

newer non-bank financial services and functions, or both. While the structure of the financial firm may well change such that the traditional activities of the bank are only one of many services, the role of banking itself will evolve, rather than decline or disappear. To maintain a competitive advantage in the financial market place, banks will have to adapt to the changing nature of intermediation, new technology which has the potential of narrowing information asymmetries, reducing the need for an intermediary, and ever-changing consumer preferences, as computer-literate customers demand value for money and sophisticated intermediation, payments, and a wide range of financial services. Competition may heighten, which could threaten the viability of some banks, but banks themselves are here to stay unless they prove unable to maintain a competitive advantage in the products they offer.

THE PERFORMANCE OF BANKS

This section begins with a review of the methods used to measure bank profitability and then considers the issue of why banks appear to under-perform, compared to other sectors of the economy. Aliber (1984) reported Q ratios for the national banks of the industrial countries and compared them with the performance of the industrial sector, for the period 1974–82. The Q ratio is defined as the ratio of the market value of a firm (as reflected in the value of its shares) to the book value of the firm. Increases in Q ratios may reflect increases in anticipated profitability or reductions in the cost of capital. Firms expand when their Q ratios exceed one and contract when they are less than unity. He showed the Q ratios for international banks had fallen relative to the Q ratios for all other firms listed. In Japan, Switzerland and Canada (for most years) bank Q ratios were higher for banks than industrial sector firms but they were lower for American and British banks.

McCormick (1987) compared bank Q ratios with those of other US industries in 1984. The banking ratio was the lowest at 0.6, the Q ratios of other industries ranging from 0.7–0.9 for steel, tyres, rubber, metals, mining, and railways to 2.5–2.7 for publishing and radio and television broadcasting. The measure is troublesome, for several reasons. The book value of a firm is *retrospective*, based on the historic value of physical assets, adjusted for depreciation and inflation. Market value is a *prospective* estimate of the firm's net present value, that is, its discounted dividend stream. Computing the Q ratio for banks is even more problematic because much of their book value is based on goodwill and the intangible assets they possess, meaning cross-industry Q ratios are not strictly comparable. Also, non-financial firms usually see the value of their assets rise with inflation (raising their market value) but financial firms see their asset values (loans) decline with inflation.

Return on assets (ROA) is the ratio of earnings to total assets and return on equity (ROE) is the ratio of earnings to total equity. *The Banker* has published data on the world's largest banks since 1969. It ranked the world's largest 300 banks from 1969–79, the world's largest 500 banks from 1980–88 and the

world's largest 1000 banks from 1989. Currently, the annual rankings appear in the July issue. The current ranking is based on "strength", measured by "tier one" capital, defined as common stock, declared reserves, and perpetual, irredeemable, and non-cumulative preference shares, expressed in US dollars. Since July 1991, *The Banker* reports three other measures of bank performance; profit on capital (%), return on assets, and an FT composite credit rating: compiled by *The Financial Times Newsletters* using 12 international ratings. An arithmetical average of numerical scores is given to each agency's investment grade ratings. The highest score is 10, the lowest is 1. Prior to 1991, *The Banker* reported real profits growth and profits on capital as measures of performance. There is virtually no correlation between *The Banker's* different rankings; for example, there is no relation between asset size and profitability.

Goldberg and Hanweck (1991) identified the key measurement problems in *The Banker's* rankings. Data are difficult or impossible to obtain in certain countries, all mergers affect the relative rankings in the year they occur, and all data are converted to US dollars to ensure comparability but it is not clear if the appropriate exchange rate is used. Furthermore, most banks report data for 31 December but some countries report data for different dates.

Perhaps the best method for assessing the performance of any institution is *value added*, which is the amount by which a production process increases the value of a good or service. It is computed by sales revenue less the cost of inputs used to produce the good/service. In banking, the sales revenue will equal explicit charges plus the interest margin (what a bank charges to borrowers and pays out to depositors). Operating costs will include wages, materials and the cost of capital. Like any profit-maximising firm, a bank's cost of capital will consist of the capital required to maintain the bank's infrastructure, and "free capital", the capital set aside to protect depositors against losses.*

In a study of 25 European Community (EC) banks, LBS and First Consulting† attempted to measure the value added of these banks. Bank value added was computed as follows. Operating profits were adjusted to reflect changes in reserves not otherwise caught in reported profits. Then a notional charge for shareholder's equity (the home country's bond yield plus a 10% risk premium) was subtracted from the adjusted operating profits. The result was the bank's value added: the money it made above the amount needed to compensate shareholders. The value added figure was then divided by factor inputs used by the bank. Thus, *bank value added* =

(adjusted operating profits – charge for shareholders' equity)
÷ bank factor inputs

*Unlike other firms, banks are required to set aside capital because of prudential concerns. See Chapter 6 for a detailed discussion of the risk assets ratio – international banks must set aside a certain percentage of their capital to cover their assets, adjusted for risk

†As reported in *The Economist* (8 August 1992) p 77. LBS: London Business School

The study used the measure to look at EC retail bank performance from 1987–90. Of the 25 banks studied, only five added value by this measure. For the other 20 banks, the value added measure was negative. Abbey National was the only British bank to add value. However, Kay (1993) showed that of 11 European retail banks, eight showed a positive value added in 1990, including, among the British "big four" banks, Barclays and Lloyds. Kay's definition of value added was adjusted operating profits less a charge for shareholders' equity.

Boyd and Gertler (1994) used US National Income Accounts (1947–87) to compute value added for commercial banks, Federal Reserve Banks, mutual saving banks, thrifts, credit unions, business credit institutions, mortgage banks, and rediscounting agencies. Here, value added was defined as the sum of payments to all factor inputs, that is, the sum of wages, salaries, profits, interest expense and depreciation. The value added was expressed as a percentage of the total value added of the financial intermediary sector. They found that over the long run, the banks' share of value added had remained constant, or had increased slightly over the period; in the 1980s, it was actually above trend. The authors also reported value added by the financial intermediary sector as a percentage of total national GDP – the measure more than doubled over the period. They concluded that banks have not lost market share over the period, and the financial intermediary sector, including banks, has been a growth industry, relative to the overall economy.

Value added has several advantages over other performance indicators. It provides a measure of the bank's competitive advantage, and is not affected by bank size, variable interest rates, or difference in regulatory regimes. Nor is it biased in favour of capital intensive banks. Value added is also less volatile than other measures, such as ROE. But the measure is not without its problems, especially in sectors where intangible assets are important. Unlike other measures, value added focuses on operating activities, rather than on returns to shareholders. For this reason, value added statements are usually computed for operating units within a firm, rather than for the firm as a whole. Thus, it is often not possible to obtain the required data from published accounts. Computing value added for banking services is so difficult that many countries with value added tax systems do not attempt to tax financial services.

Price earnings (PE) ratios* can also be used to look at relative performance. A Federal Reserve Bank of New York study (1986) reported that in mid-1986, the PE ratio of US multinational banks was 10.2 and that of large regional bank holding companies was 12.2. This compared with a figure of 15.7 for the S&P 500. PE ratios for the investment banks were not available because they had only recently gone public. But for the five largest publicly quoted investment banks, the PE ratio for April 1986 was 14.9. These relatively poor PEs may be because banks are viewed as stodgy investments by the stock market

* The price earnings ratio for a firm is the firm's market share price divided by the firm's earnings per share (most recently reported). It will vary with the market's assessment of the risks involved. If a company's PE ratio falls, it is an indication the market perceives it as a more risky invest-
m

and hence their PE ratios are lower. For example, the shrinking wholesale market affected the stock market assessment of earnings prospects. Additionally, adjusting earnings for inflation makes the PE ratios higher for the multinational banks than the S&P 500 in the period 1977–79. They were close to the 500 in 1981, and in 1984 above the 500.

Keehn (1994) used the Federal Reserve's flows of fund accounts and showed the commercial banks' share of total assets of all financial institutions fell from 48% in 1952 to 25% in 1993. Commercial bank loans as a percentage of total loans declined from 91% in 1950 to 59% in 1992. In the UK, the banks' share of total liabilities of intermediaries declined from 64% in 1913 to 27% in 1991. But as Keehn himself notes, these figures ignore off-balance sheet operations. Furthermore, assets as a measure of output in the financial sector is problematic.* Keehn also reported that employment in commercial banking kept pace with that in the finance, insurance and retail sectors from 1934–77. As a percentage of employment in the non-farm private economy, employment in banking increased through to 1983. Bank closures and consolidation in the 1980s and 1990s explains why employment has declined over the last decade, but it is too early to judge whether this is actually a trend.

Revell (1980) used interest margins as a measure of bank performance. He computed the ratios of interest margin (total reported interest income less interest expense) as a percentage of average total assets for US commercial banks. These rose over the period 1964–77, peaking in 1980. But pre-tax profits as a percentage of total average assets showed a flatter trend. This type of measurement is increasingly unhelpful as banks move away from traditional activities and offer non-banking financial services.

A number of studies have attempted to assess performance using either an index measure or multiple indicators. Arshadi and Lawrence (1987) looked at the performance of newly chartered banks in the USA. Since bank performance is a multidimensional concept, these authors used canonical correlation analysis (rather than the more common multiple regression analysis) to estimate the effect of internal and external variables on an index measure of performance. Performance of a new bank was defined as an index of profitability, pricing of bank services (average loan and deposit rates), and loan market share in the trade area. Fourteen endogenous and exogenous variables were selected in order to identify the external and internal factors influencing bank performance. A full list can be found in the paper. Data were taken from the period 1980–84 for a sample set of banks that gained their charters in 1977–79. Third and fifth-year financial data were used in the analysis.

The study by Arshardi and Lawrence reported a number of key findings. Performance measures found to be significant were market share, loan price, and return on assets. Average interest payments on deposit accounts did not appear to be a significant contributor to performance. Four explanatory variables turned out to be important to performance: wages and salaries, operating

*See Chapter 4 for more detail

costs, size of the bank (the latter two show the importance of scale economies to the performance of a new bank) and two proxies for the structure of banking markets, the size of the trade area, and the presence or absence of a metropolitan area. The authors concluded that the performance of newly chartered banks is a function of endogenous factors under the control of bank management. Demand factors (demographics and effective income) appeared unimportant.

Hirtle (1991) devoted part of her paper to the assessment of the performance of 51 international banks and securities firms, using multiple indicators. Performance was assessed using four measures: profitability (return on assets and return on equity); size (the levels and growth rates of total assets and revenue); capitalisation (the shareholders' equity and price–earnings ratios); and productivity, the ratio of total revenue to non-interest expense. The data came from the financial statements of the 51 sample firms for the period 1985–89.

Hirtle found good performance among the Japanese, Swiss, German, British, Canadian, and American banks, though they did well by different measures. The Japanese banks performed well in terms of size, growth, and productivity; Swiss banks by capitalisation and profitability; German banks by real asset growth and productivity; Canadian banks by real revenue growth, productivity, and shareholders' equity ratio; UK banks showed some strength in size, productivity and shareholders' equity ratio. Banks in the US had a high score for total assets, but did less well using measures of productivity and capitalisation. For the German and Swiss banks, hidden reserves and unreported earnings will understate their profitability and capitalisation. Differences in national accounting practices and standards mean any cross-country comparisons must be treated with caution. This is especially the case for Japanese, German, and Swiss banks. Also, the performance measures were based on retrospective balance sheet data, which may not be good indicators of future performance.

Using a share price index measure, a Bank of England article (1992) on international bank performance showed that aggregate bank share price indices (1975 91) in Germany, the UK, and the US all under-performed their local stock market indices. But Levonian (1994) would argue that these findings only hold in the short run, at least for US banks. Levonian examined long-run bank profitability, using quarterly cross-section stock market data for 81 US banks in the period June 1986 to June 1992. Profitability was defined as the nominal rate of return on equity (R), assumed to converge to some long-run level (R^*). Based on his findings, Levonian argued recent poor profitability in the short-term does not reflect the true long-run condition of the industry because market pricing of stocks indicates that agents do not think the long-run profit spread (the difference between R and the cost of capital) is going to be negative, and profits in banking will cover the cost of capital. He concluded that either the market thinks the recent poor profitability is temporary and short-term, or it believes reported income of banks is lower than the true value.

The majority of studies referred to above suggest that the banking sector tends to perform poorly relative to other industrial sectors, independent of what measure is used. There are a number of possible explanations. First, interest rates. Bank share prices tend to rise (relatively more than in other sectors*) as interest rates fall because net interest margins (the difference between average loan rates and deposit rates) widen. Thus, the general upward trend in interest rates in the late 1970s had a more pronounced adverse effect on bank share prices. However, as banks diversify into fee-based financial products, their performance may be less sensitive to interest rate fluctuations.† Improved risk management techniques (see Chapter 5) should also mean banks are less sensitive to volatile interest rates. On the other hand, if banks are inexperienced in the risk associated with new financial products, these may be incorrectly priced, thereby adversely affecting performance. Another reason often cited to explain poor performance is the presence of oligopolistic banking structures which make the industry less efficient than other, more competitive industries. Increased international competition among banks and deregulation should make them more efficient, but at the expense of lower profitability.

Finally, a possibly very important explanation may be that the measures themselves are insufficiently accurate to give a true picture of bank performance. A study by Boyd and Gertler (1994) showed that US commercial bank performance is fairly steady, provided one adjusts the standard measurements for foreign bank lending and the growth in off-balance sheet business (fees, loan securitisation, bank guarantees on commercial paper, and derivatives). If foreign bank operations in the US are adjusted to include foreign loans booked offshore, the figures change quite dramatically. For example, in 1992, the unadjusted share of bank assets held by foreign banks was 11%; the adjusted share was 21%.

Boyd and Gertler used two indirect estimates of off-balance sheet activities. The first was the credit risk equivalents computed to satisfy the requirements of the Basle risk assets ratio (see Chapter 6); the second was the credit equivalent of off-balance sheet activities that would be required to generate the observed level of non-interest income. Boyd and Gertler then recomputed the banks' share in total intermediated assets and bank credit relative to GDP. Unadjusted, the shares of US bank assets as a percentage of total financial intermediaries assets declined from 46% in 1974 to 34% in 1992. If the figures are adjusted, the fall in the bank share that occurred

*Share prices rise as interest rates decline because the stream of profits is discounted at a higher rate, and therefore firms have a higher capital value.

†A note of caution should be sounded on this point. Financial intermediaries earned large revenues from fee-based activities such as the arrangement of bond issues by companies during falling interest rates, when these firms wish to refinance their debt. But in a period of rising interest rates, fee income will decline as firms issue fewer bonds, and households tend to transfer investments from the bond and equity markets back into high-interest deposit accounts.

after 1974 is halved. For over 40 years, the average bank share was just over 40%; in the late 1980s and 1990s, the share fell to slightly under 40%. Unadjusted, the ratio of commercial bank assets to GDP and commercial bank loans to GDP increased in the period 1957–92; these ratios remain unchanged between 1974 and 1992. But recomputed figures showed commercial banking increased in importance relative to economic activity. The value added figures reported by Boyd and Gertler (see p. 32) are consistent with these more positive trends, as were long-term profitability results reported by Levonian.

STYLISED FACTS ON BANKING*

Table 1 shows the average number of commercial and savings bank institutions over the period 1981–89, for most of the industrialised countries. There are relatively few commercial banks in North America, Japan, and the UK—approximately one per million habitants. But there are many more in Continental Europe, where one per 200 000 habitants is the norm. Germany leads the way in the number of savings banks, followed by the USA, Denmark and Spain. Germany also has an extensive cooperative movement, with nearly 3000 cooperative banks.

The annual average growth rate of banking assets is shown in Table 2, and Figure 3. There was a very rapid growth of assets in the 1970s, varying from 12.6% for the USA, to 33% for Luxembourg. In the 1980s, the growth rate of assets slowed to single figures for most industrialised countries, with the exception of Japan, Denmark, and the UK. The average ratio of total assets to nominal GDP for most industrialised countries in the period 1981–89 is illustrated in Figure 4. For most countries, banking assets are more than 100% of national income.

Figures 5 and 6 show the spread between, respectively, the money market rate and the deposit rate, and the loan rate and money market rate. The deposit rate is defined as the rate offered to resident depositors for demand, time, or savings deposits; the loan rate as an average rate quoted for short and medium-term loans. In Figure 5, one would expect to observe a positive margin, which is the case for most countries, with the margin widening in the period 1990–92. However, the margins are negative in both periods for Luxembourg and Portugal. It is likely these figures are too aggregated, producing somewhat unreliable results. For example, in the UK, the seven-day rate is reported, though most depositors choose deposit products with more competitive rates. Figure 6 shows loan rates typically exceed money market rates, but the gap varies widely—it is quite low in the UK, Japan, North America, and higher in much of Continental Europe. Again, the rates may to be too aggregated to

*I should like to thank Steven Funnell, a 1996 graduate of the BSc Banking and International Finance degree at City University Business School, for his assistance in compiling the figures in this section.

Table 1 Average numb[illegible] of commercial and savings bank institutions over the period [illegible]

	Commercial[1]	Savings[2]
Belgium	85	30
Canada	10	NA
Denmark	217	216
France	403	NA
Germany	213	590
Italy	219	82
Japan	92	NA
Luxembourg	126	NA
Netherlands	87	NA
Portugal	23	NA
Spain	138	80
Switzerland	NA	217
UK	51	NA
USA	299	336

Source OECD Paris (1991) *Bank Profitability Statistical Supplement*
[1]*Commercial banks*
Canada data relates to Canadian Bank groups reporting on a consolidated worldwide basis
The figures are for fiscal years ending 31 October
Denmark figures aggregated for commercial banks and savings banks
France – figures aggregated for commercial banks and credit cooperatives Data is for branches in France but excludes subsidiaries abroad
Japan – Data related to fiscal year ending 31 March. Data is based on the annual publication of the Federation of Bankers Association of Japan "Analysis of Financial Statements of All Banks" The term Commercial Banks corresponds to the term All ordinary banks used in Japanese publications. As from 1988 the data includes Sogo banks.
Sogo banks are banks for small to medium sized industries.
Netherlands – As of 1986 the data includes the merged Postbank, one of the parties previously not recorded in the data.
Switzerland – Data is for large commercial banks Data for 1988 and 1989 is not available.
UK – Data relate to London and Scottish banks groups ie. eight of the largest domestic banking groups reporting on a consolidated worldwide basis The consolidated data include an unspecified number of branches and subsidiaries abroad as well as domestic non bank subsidiaries
USA – The term Commercial banks is the same as insured commercial banks used in United States publications
[2]*Savings banks (NA for Canada, France, Japan, Italy (81 & 82) Luxembourg, Netherlands, Portugal, Switzerland, UK & USA (81-85*
Denmark – data for Commercial and Savings Banks.
Switzerland – data for regional and savings banks.
USA – data for Mutual Savings Banks.

Finance capital

A study of the latest phase of capitalist development

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Routledge & Kegan Paul
London, Boston, Melbourne and Henley

5

The banks and industrial credit

Credit first appears as a consequence of the changed function of money as a means of payment. When payment is made some time after the sale has taken place, the money due is credited for the intervening period. Naturally, this form of credit presupposes commodity owners and, in a developed capitalist society, productive capitalists. Assuming that we are dealing with a single isolated example of this practice this simply means that capitalist A has enough reserve capital to wait for payment from B who did not have the necessary cash at the time of the purchase. In this kind of unilateral advance of credit, A must have available the sum of money which B will have to pay when the debt falls due. Money is not economized thereby; it is merely transferred. Things are different if the promissory note itself functions as a means of payment. To take an example; if A not only advances credit to B, but also receives credit from C by giving him B's note, C can use that note to make any payments he owes to B. Sales and purchases between A and B, A and C, C and B have taken place without the intervention of money. Money is therefore saved, and since this money must have been in the possession of productive capitalists as money capital for the circulation of their commodity capital, it follows that for them money capital has been saved. The promissory note, in other words, has replaced money by performing the work of money, by functioning as credit money. A large part of the circulation processes, including the largest and most concentrated operations, take place among the productive capitalists, and all these transactions can, in principle, be accomplished by promissory notes or bills of exchange.* The majority of such bills cancel out and hence only a small amount of cash is required to settle the balances. In this case productive capitalists are mutually providing each other with credit. What the capitalists lend each other is commodities, which constitute for them commodity capital. At the same time, however, these

* Throughout his study Hilferding uses the term Wechsel to denote a variety of credit instruments which are usually given distinct names in the English-speaking world. I have therefore translated the term in different ways according to the context [Ed.]

commodities are looked upon as mere bearers of a given amount of value, which is assumed to have been realized in its socially valid form at the time of sale. In other words, they are regarded as the bearers of a specific sum of money represented by the bill. The circulation of bills, therefore, is based upon the circulation of commodities, but of commodities which have been sold and converted into money, even if the conversion is one which society has not yet accepted as valid, but which only exists as a private act in the buyers' promises to pay.[1]

This type of credit, advanced by productive capitalists to one another, I shall call circulation credit. I have already noted that it is used as a substitute for money and that, by facilitating the transfer of commodities without the use of money, it helps to conserve precious bullion. The expansion of this type of credit is based on the increased use of this method of transferring commodities, and since commodity capital is involved here – transactions between productive capitalists – it depends also upon the expansion of the reproduction process. Whenever the scale of reproduction increases, there is also an increased demand for productive capital (machinery, raw materials, labour power).

An increase in production means a simultaneous increase in circulation; and the enlarged circulation process is made possible through an increase in the quantity of credit money. The circulation of bills expands, and can expand, because the quantity of commodities entering circulation is larger. This growth of circulation can proceed without any rise in the demand for gold money. Equally, the relation between the supply of and demand for money capital need not change, because the greater need for means of payment can be met simultaneously, and in the same proportion, by a larger supply of credit money based upon the increased volume of commodities.

What increases in this case is the circulation of bills of exchange.[2] This increased credit need not in any way affect the relation between the demand for and supply of the elements of real productive capital. Rather, both are likely to increase at the same rate. The process of production is expanded, and commodities are thus produced which are required to carry on production on an enlarged scale. We therefore have an increase in credit as well as an increase in productive capital, both of which are reflected in an increased circulation of commercial bills. But this does not entail any variation in the relation of the supply to the demand for capital in money form. Yet it is only *this* demand which affects the rate of interest. It is therefore possible for the supply of credit to increase without any change in the rate of interest, provided that the additional credit consists exclusively of circulation credit.

The circulation of bills is limited only by the number of business transactions actually concluded An overissue of state paper money will

depress the value of each individual money unit without changing the value of the total supply of paper money, but commercial bills can in principle only be issued when a business transaction has been concluded, and for this reason bills cannot be overissued. If a particular transaction is fraudulent, the bill of course will become worthless. But the worthlessness of one bill has no effect on all the others.

The impossibility of an overissue of bills does not, however, preclude the possibility that capitalists may assume excessive monetary obligations in the form of credit instruments of this type. During a crisis, for instance, the prices of commodities fall and obligations cannot be redeemed in full. Market stagnation makes the conversion of commodities into money impossible. The manufacturer of machines who issued bills in payment for coal and iron, hoping to redeem them through the sale of his product, now finds himself unable to liquidate his obligation or to satisfy his creditor by giving him a bill drawn on a purchaser of his own machines. If he has no reserves his bills become worthless, notwithstanding the fact that they represented commodity capital at the date of issue (coal and iron converted into machines).[3]

In providing credit for the period of circulation bills are a substitute for the additional capital that would otherwise have been required to bridge over that period. These bills are normally issued by productive capitalists to one another. But if returns fail to materialize the money has to be obtained from a third party, the banks. The banks are also involved whenever the normal conditions of bill circulation are disturbed; for instance, when commodities become temporarily unsaleable or are withheld for speculative or other purposes. In this case the banks merely extend and supplement the credit provided by bills.

Circulation credit thus extends the scale of production far beyond the capacity of the money capital in the hands of the capitalists. Their own capital simply serves as the basis for a credit superstructure and provides a fund for the settlement of balances, as well as a reserve against losses when bills depreciate.

The saving in cash money tends to increase to the extent that bills cancel each other out. Special institutions are required for this purpose. The collection and clearance of credit instruments is a task performed by the banks. At the same time, more money can be saved the more frequently a single bill can be used as a means of payment. Bills will circulate in this more extensive way only if there is certainty that they will be redeemed; that is, if their security as a medium of circulation and means of payment is publicly recognized. This, too, is one of the tasks of the banks. Banks perform both functions by buying bills. In so doing, the banker becomes a guarantor of credit and substitutes his own bank credit for commercial credit in so far as he issues a bank note in place of industrial and

commercial bills. The bank note is simply a draft on the banker which is more readily acceptable than the notes of the industrialist or merchant. Thus the bank note rests upon the circulation of bills. The state note is backed by the socially necessary minimum of commodity transactions, and the bill of exchange by the completed commodity transaction as a private act of the capitalist. The bank note, on the other hand, is secured by the bill, or promissory note, which is backed by the total assets of all the drawers who were parties to the exchange. At the same time, the issue of bank notes is limited by the volume of discounted bills and hence by the number of completed acts of exchange.

Originally, therefore, the bank note was simply a bank draft which replaced bills issued by productive capitalists.[4] Prior to the use of bank notes bills often circulated with a hundred or more signatures before they fell due. On the other hand, the first bank notes resembled ordinary commercial bills in being issued for the most varied amounts rather than in round sums. Nor were they always payable on demand.

> In past times, it was not uncommon for banks to issue notes, payable on demand, or at a distant day from that of presentation, at the option of the issuer, but in such case, the notes bearing interest till the day of payment.[5]

A change (which, however, does not affect the economic laws involved) was first introduced when the state intervened. The purpose of its legislation was to guarantee the convertibility of the bank note by limiting, directly or indirectly, the quantity that might be issued, and by making the issue of bank notes a monopoly of a bank operating under state control. In countries where there is no state paper money, or where its volume is far below the socially required minimum, the bank note takes its place. Where such notes are made legal tender during certain periods of crisis they become in effect state paper money.[6]

The artificial regulation of the issue of bank notes fails as soon as circumstances require an increased issue. For instance, when the credit structure collapses during a crisis, the credit money (bills) of many individual capitalists is impaired, and the place it occupied in circulation has to be filled by additional means of circulation. The law becomes impotent and is either disregarded (as recently occurred in the United States) or suspended (as in the case of the Peel Act in England). People will accept bank notes while they reject many other bills simply because the credit of the bank has not been impaired. If it were impaired the notes would have to be made legal tender, or state paper money would have to be issued. If this were not done, purely private means of circulation would be contrived, as they were in the recent American crisis. But this is a much less

effective method of combating a money crisis, especially when such a crisis is aggravated by unsound legislation with respect to the issue of bank notes.[7]

Like the bill of exchange the convertible note cannot be issued in excess quantities. (The inconvertible note is really identical with legal tender state paper money.)[8] A bank note which is not required in circulation is returned to the bank. Since it can be used in lieu of the bill of exchange, the issue of notes is subject to the same laws as is the circulation of bills, and expands along with the latter so long as credit remains undisturbed. The credit behind a bank note can hold its own even during a crisis and consequently, when the circulation of bills contracts during a crisis, bank notes and cash are used in their place.

With the development of the banking system, as unemployed money flows into the banks, bank credit is substituted for commercial credit, so that increasingly all bills serve as means of payment not in the original form in which they circulate among productive capitalists, but in their converted form as bank notes. Banks become the institutions for clearing and settling balances, a technical improvement which extends the range of possible mutual cancellation and reduces the amount of cash required for settling balances. The money which productive capitalists had previously been obliged to keep on hand for settling the bills they had drawn now becomes superfluous, and flows as deposits to the banks who can use it to settle the balances.

Since the banker substitutes his own credit for the commercial bills, he requires credit, but only a relatively small money capital of his own, in order to guarantee his ability to pay. What the banks do is to replace unknown credit by their own better known credit, thus enhancing the capacity of credit money to circulate. In this way they make possible the extension of local balances of payment to a far wider region, and also spread them over a longer time period as a consequence, thus developing the credit superstructure to a much higher degree than was attainable through the circulation of bills limited to the productive capitalists.

Nevertheless, we should be on guard against the error of double counting with regard to the capital which banks supply to producers by discounting their bills. The greater part of bank deposits belong to the productive capitalists who, as the banking system evolves, keep the whole of their liquid money capital in the banks. This money capital, as we have seen, is the basis for the circulation of bills. But it is that class's own capital, and the class does not receive any new capital through the discounting of bills. All that has happened is that capital in one money form (as a private promise to pay) has been replaced by capital in another money form (as a promise to pay by the bank, ultimately in cash). Money capital is involved only to the extent that it replaces the realized commodity capital In other words,

money is regarded here from a generic point of view. In a functional sense, however, money is always involved, either as a means of payment or of purchase.

The substitution of bank credit for the credit of the productive capitalist can, of course, take place in other forms than the issue of bank notes. For instance, in countries where the note issue is a monopoly, private banks may supply bank credit to producers by 'accepting' their bills; that is by endorsing them, and thus guaranteeing their redemption. By this means, the bill benefits from the credit of the bank, and its ability to circulate is increased as if it had been replaced by a note of that particular bank. It is well known that a large part of international commercial transactions, in particular, are carried on by means of such bills. In principle, there is no difference between such 'acceptances' and the notes of private banks.[9]

Circulation credit, in the sense in which I have used the term, simply consists in the creation of credit money. Thanks to the service it performs, production is not limited by the volume of available cash which is part of the socially necessary minimum of circulation (full value metallic money, standard currency, gold and silver coins, plus legal tender state paper money and small change).

But circulation credit as such does not transfer money capital from one productive capitalist to another; nor does it transfer money from other (unproductive) classes to the capitalist class, for transformation into capital by the latter. If circulation credit is merely a substitute for cash, that credit which converts idle money of whatever kind (whether cash or credit money) into active money capital is called capital (or investment) credit, because it is always a transfer of money to those who use it, through the purchase of the various elements of productive capital, as money capital.

We saw in the last chapter how hoards of idle money accumulate in the course of capitalist production which can be used as money capital. It is these sums, which are sometimes involved in the circulation process and are sometimes idle, which are hoarded either for the replacement of fixed capital or as saved-up surplus value until they are large enough for accumulation. Three aspects need to be distinguished here: (1) the individual sums must be collected until, through centralization, they are sufficiently large to be used in production; (2) they must be made available to the right people; and (3) they must be available for use at the right time.

We have seen earlier how credit money originates in circulation. We are now dealing with money which lies idle. But money can only perform the functions of money, and can do so only in circulation. Credit, therefore, can do no more than put non-circulating money into circulation. As capitalist credit, however, it puts money into circulation only in order to withdraw more money. It puts money into circulation as money capital in

order to convert it into productive capital. Thus it expands the scale of production, and this expansion presupposes the expansion of circulation. The scale of circulation is enlarged not by the injection of new money, but simply by the utilization of old, previously idle money for the purposes of circulation.

There is thus a need for an economic function which consists of collecting idle money capital and then distributing it. But credit assumes here an entirely different character from ordinary circulation credit. Circulation credit merely makes it possible for money to serve as a means of payment. Payment for a commodity which has been sold is credited, and the money which would otherwise have had to enter circulation is saved because it is replaced by credit money. Actual money which might otherwise be required thus becomes superfluous. On the other hand, no new capital is made available to the capitalist. Circulation credit merely gives his commodity capital the form of money capital.

Capital (investment) credit, however, involves the transfer of a sum of money from the owner, who cannot employ it as capital, to another person who intends to use it for that purpose. This is the purpose of the money. For if it were not employed as capital, its value would not be maintained or recovered. From the standpoint of society as a whole, however, the borrower must always repay his debt if lending is to take place with any degree of security. In this case, therefore, there is a transfer of money which already exists, and no money is economized. Investment credit thus transfers money and converts it from idle into active money capital.[10] Unlike ordinary commercial credit, it does not reduce the costs of circulation. Its primary purpose is to enable production to expand on the basis of a given supply of money. The possibility of investment credit arises from the conditions of circulation of money capital, from the fact that in the cycle of capital money periodically falls idle. Some capitalists are always paying such funds into the banks which, in turn, make them available to others.

If, therefore, we view the matter from the standpoint of the capitalist class as a whole, the money is not idle. No sooner is it hoarded at any point in circulation, than it is immediately converted by the use of credit into an active money capital in another process of circulation. The class as a whole can economize in its advances of money capital, because the transferability of money available during intervals of circulation obviates the formation of idle money hoards. The relatively small part of the money supply which the capitalist class needs to lay by as a hoard, is required only to cope with irregularities and interruptions in circulation.

Previously we were dealing with productive capitalists (producers and merchants) who conducted their business (for instance, the purchase of means of production) by means of credit money. Now the productive

capitalist has become a money capitalist or a loan capitalist. This new guise, however, is temporary, lasting only for the period during which his money capital lies idle, anxious to be turned into productive capital. And just as he is a lender at one moment, so he is a borrower from some other productive capitalist at another. The character of loan capitalist is at first only transitory, but with the development of the banking system it becomes the specialized function of the banks.

Credit causes the available supply of money capital to do a larger volume of work than would be possible in the absence of credit. It reduces idle capital to the minimum which is necessary to avoid interruptions and unforeseen changes in the capitalist cycle. It thus tries to eliminate, for the benefit of the whole social capital, the idleness of money capital which an individual capital experiences for a certain period of time in the course of the cycle.

It follows that deposits and withdrawals by productive capitalists take place in accordance with definite laws, which can be inferred from the nature of the circulation process of productive capital and the length of its cycle. Experience has familiarized the banks with these regularities, which indicate the minimum amount of deposits under normal conditions, and hence the amount which they can make available to productive capitalists.

The cheque is a direct order upon a deposit, while the commercial bill draws upon it only indirectly. The cheque draws upon an individual deposit, while the bill is based upon the aggregate deposit of the whole class. For it is essentially their own deposits which are made available to the capitalist class for discounting bills, and when the bills which fall due are paid the money, which has accrued in fact from the sale of commodities, returns to the banks as deposits. Should this reflux of money diminish, and the repayment of these bills be reduced, capitalists would have to secure additional capital. They would then draw upon their deposits, and thus reduce the fund which is available for discounting their bills. The bank now has to intervene and discount bills with its own credit, but since the deposits which provide the basis for the circulation of bills have been reduced, and the bank's liquidity has declined, it is dangerous for the bank to expand its own credit. The retarded reflux of money, in this case, has increased the demand for bank credit and thus – since credit cannot be expanded – for bank (i.e. loan) capital. This is expressed by a rise in the rate of interest. The functioning of the bill as credit money has declined in importance, and actual money obtained from the bank has had to take its place, as is revealed by the increased demand for money capital. Thus we see a reduction of deposits, while the circulation of commercial bills remains constant or even increases, and the interest rate rises.

It is obvious that the total volume of deposits is many times greater than the available supply of cash. Metallic money circulates rapidly and is also

the basis for the circulation of credit money. Any transfer of either metallic money or credit money may result in a deposit with the banker, and the fact that the volume of deposits can thus greatly exceed the stock of cash is shown by the rate of circulation (including credit money).

A deposits 1,000 marks in a bank. The bank lends these 1000 marks to B who, in turn, uses them to pay his debt to C. C then again deposits the 1,000 marks in the bank. The bank lends them out again and receives them once again as a deposit, and so on.

> The deposits . . . play a double role. On the one hand . . . they are loaned out as interest-bearing capital, and are not found in the cash boxes of the banks, but figure merely in their books as credits of the depositors. On the other hand, they figure as such book entries to the extent that the mutual credits of the depositors in the shape of cheques on their deposits are balanced against one another and so recorded. In this procedure, it is immaterial whether these deposits are entrusted to the same banker who can thus balance the various credits against each other, or whether this is done in different banks, which mutually exchange cheques and pay only the balances to one another.[11]

In terms of the preceding account the bank has performed two functions: (1) it has facilitated the process of making payments, and by concentrating them and eliminating regional disparities, it has enlarged the scale of this process; (2) it has taken charge of the conversion of idle capital into active money capital by assembling, concentrating and distributing it, and in this way has reduced to a minimum the amount of idle capital which is required at any given time in order to rotate the social capital. The bank assumes a third function when it collects the money income of all other classes and makes it available to the capitalist class as money capital. Capitalists thus receive not only their own money capital, which is managed by the banks, but also the idle money of all other classes, for use in production.

In order to perform this function the banks must be able to assemble, concentrate, and lend out as much of the available idle money as possible. Their principal means of doing so are the payment of interest on deposits and the establishment of branch banks where such deposits can be made. This 'decentralization' – a misnomer perhaps, because the decentralization is purely geographical rather than economic – is essential to the bank's job of transferring idle money to productive capitalists.

The money capital which is thus supplied by the banks to industrial capitalists can be used to expand production in two different ways: by increasing either fixed capital or circulating capital. The distinction is a very

important one because it determines the way in which the money capital flows back. Money capital which is advanced for the purchase of circulating capital flows back in the same manner; that is, its value is fully reproduced during a single turnover period and reconverted to the money form. This is not the case, however, when the advance is made for investment in fixed capital. Invested in this way, the money returns in piecemeal fashion, in the course of a long series of turnovers, during which time it remains tied up. This difference in the reflux of money is responsible for a difference in the way in which the bank invests its money. When it invests its capital in a capitalist enterprise the bank becomes a participant in the fortunes of the enterprise; and this participation is all the more intimate the more the bank capital is used as fixed capital. The bank enjoys far more freedom of action in its dealings with a merchant than with an industrial entrepreneur. In the case of merchant capital, only credit for payments is involved, and as we shall see, this explains why bank capital stands in an altogether different relationship to merchant capital than it does to industrial capital.

Bank capital (including other funds, as mentioned above) is supplied to industrial capitalists in a number of ways; by allowing them to overdraw their own deposit accounts, by establishing open credit accounts, or by current account operations. There is no difference in principle between these three methods. What really counts is the purpose for which the funds are applied, that is, whether they are used as fixed or circulating capital.[12]

To the extent that banks tie up their funds, they are obliged to keep a comparatively large capital of their own, as a reserve fund, and as security for the uninterrupted convertibility of deposits. Thus banks which are engaged in supplying long-term credit, in contrast to pure deposit banks, must have at their disposal a substantial capital. In England the ratio of paid-up share capital to liabilities is extraordinarily small: 'In the excellently managed London and County Bank, the ratio in 1900 was 4.38 to 100.'[13] On the other hand, this ratio also explains why the dividends of the English deposit banks are so high.

Originally, the principal credit instrument was the bill of exchange used as payment credit by productive capitalists – industrial and commercial – in their dealings with one another; its outcome is credit money. When credit is concentrated in the hands of the banks, investment credit becomes increasingly important in comparison with payment credit. At the same time the credit which industrialists extend to one another may change its form. Since all their money capital is held in liquid form in the banks, it becomes a matter of indifference to them whether they extend credit to one another by means of commercial bills or by claims upon their bank credit. Bank credit can therefore be substituted for bills, and the

circulation of the latter begins to diminish. Industrial and commercial bills are replaced by bank drafts, which are based upon an obligation of the industrialist to the bank.[14]

The transition from commercial to investment credit is also apparent in international markets. In the early stages of development England (and Dutch policy was similar in the early period of capitalism) extended commercial credit to countries which bought English products, while paying for a larger proportion of her own imports in cash. The situation is different today: credit is not provided exclusively or mainly in the form of commercial credit, but for capital investment, the object of which is to gain control of foreign production. The principal international bankers today are not so much the industrial countries like the United States and Germany; it is primarily France, and then Holland and Belgium, which were already financing English capitalism in the seventeenth and eighteenth centuries, which are the main providers of investment credit. England, in this regard, occupies an intermediate position. This accounts for the differences in the gold movements in and out of the central banks of these countries. For a long time London has been the only genuinely free market for gold and hence the centre of the trade in gold, so that the movement of gold through the Bank of England has served as an index of international credit relations. The free movement of gold has been impeded in France by the gold premium policy, and in Germany by various policies of the Reichsbank management. Since the credit extended by England to this very day is still largely commercial credit, the fluctuations of England's gold reserve depend, in the main, on the state of industry and trade, and the balance of payments. The Bank of France, on the other hand, enjoys a far greater degree of freedom in making its dispositions, thanks to its enormous gold reserve and relatively small commercial obligations. Whenever there is any disturbance in the market for commercial credit, it is the Bank of France which comes to the assistance of the Bank of England.

The important thing about this relative independence of bank credit from ordinary commercial credit is that it gives the banker certain advantages. Every merchant and industrialist has commitments which must be honoured on a specified date, but his ability to meet these obligations now depends upon the decisions of his banker, who can make it impossible for him to meet them by restricting credit. This was not the case when the bulk of credit was commercial credit and banks were only dealers in bills. In such circumstances, the banker himself was dependent upon the state of business and the payment of bills, and had to avoid so far as possible any restrictions of the credit required by business, since otherwise he might destroy the whole commercial credit structure. Hence the expansion of his own credit to the full, even to the point of overextending himself and inviting bankruptcy Today, when commercial credit is far less important

than investment credit, the bank is able to dominate and control the situation much more effectively.

Once the credit system has attained a certain degree of development, the utilization of credit by the capitalist enterprise becomes a necessity, imposed upon it by the competitive struggle. The use of credit by an individual capitalist means an increase in his rate of profit. If the average rate of profit is 30 per cent and the rate of interest 5 per cent, a capital of 1,000,000 marks will produce a profit of 300,000 marks. (This will appear in the accounts of the capitalist as 250,000 marks entrepreneurial profit and 50,000 marks interest on capital.) If the capitalist succeeds in obtaining a loan of another 1,000,000 marks, he will make a profit of 600,000 marks, less 50,000 marks interest on his loan, leaving him a net profit of 550,000 marks. If this is calculated on his own capital of 1,000,000 marks it amounts to an entrepreneurial rate of profit of 50 per cent as compared with the original 25 per cent. And if the larger capital also makes it possible for him to increase his output, and so produce more cheaply, his profit might well be even larger. If other capitalists do not have access to credit on the same scale, or on equal terms, the favoured capitalist can make an extra profit.

Under unfavourable market conditions the use of credit has other advantages. A capitalist who uses borrowed capital under these circumstances can reduce his prices, for that proportion of his output produced with borrowed capital, below production prices (cost price plus average profit) to the point where they equal cost price plus interest, and can therefore sell his whole output below the production price without diminishing the profit on his own capital. All that he sacrifices is the entrepreneurial profit on the borrowed capital, not the profit on his own capital. In periods of economic depression, therefore, the use of credit bestows an advantage in price competition, which is all the greater the larger the amount of credit. For productive capitalists, therefore, their own productive capital becomes only the basis of an enterprise which is expanded far beyond the limits of the original capital with the aid of borrowed capital.[15]

The increase of entrepreneurial profit through the use of credit accrues to the individual capitalist and to his own capital. It leaves unchanged, at first, the average social rate of profit, but it does, of course, increase the total sum of profit and accelerate the pace of accumulation. Those capitalists who use credit before others do so, or more extensively, are able to enlarge their scale of production, increase the productivity of labour, and thus gain initially an extra profit; but as this process continues the rate of profit tends to fall, because the expansion of production is usually associated with a tendency toward a higher organic composition of capital. The increase in the entrepreneurial profit of individual capitalists stimulates their demand for further credit, and the supply of such credit is made possible by the

increasing concentration of money capital from all sources in the banks. This tendency arising in industry is bound to react upon the banks' methods of providing credit.

One of the first results of this intensified demand is that credit is sought for use as circulating capital. An increasing proportion of the entrepreneur's own capital is transformed into fixed capital while the bulk of circulating capital comes from the borrowed funds. But as the scale of production expands, and fixed capital becomes much more important, so this limitation of credit to circulating capital is felt to be too restrictive. If credit is then required for fixed capital, however, the terms on which credit is made available undergo a fundamental change. Circulating capital is reconverted into money at the end of a period of turnover, whereas fixed capital is converted into money very gradually, over a long period of time, as it is slowly used up. Consequently, money capital which is turned into fixed capital must be advanced on a long-term basis because it will remain tied up in production for a long time. The loan capital available to the bank, however, is usually repayable at short notice to its owners. For this reason the bank can only lend for fixed capital investment that amount which remains in its own possession for a sufficiently long time. This does not apply, of course, to any particular unit of loan capital; but there always remains in the hands of the bank a large proportion of the total loan capital, the composition of which will naturally change, while a certain minimum amount will always be available, and can therefore be lent for fixed capital investment. While individual capital is not suitable for fixed investment in the form of loan capital – for it ceases then to be loan capital and becomes industrial capital, and the loan capitalist is turned into an industrial capitalist – the minimum which the banks always have available is appropriate for fixed investment. The larger the aggregate capital at the disposal of the bank, the larger and more constant will be the portion which it can lend in this way. Hence a bank cannot lend funds for investment in fixed capital until it has attained a certain size; and it must expand as rapidly, or more rapidly, than industrial enterprises themselves. Moreover, bank cannot limit its participation to a single enterprise, but must distribute the risks by participating in many different enterprises. This policy will in any case be adopted to ensure a regular flow of repayments on its loans.

This way of providing credit has changed the relation of the banks to industry. So long as the banks merely serve as intermediaries in payment transactions, their only interest is the condition of an enterprise, its solvency, at a particular time. They accept bills in which they have confidence, advance money on commodities, and accept as collateral shares which can be sold in the market at prevailing prices. Their particular sphere of action is not that of industrial capital, but rather that of

commercial capital, and additionally that of meeting the needs of the stock exchange. Their relation to industry too is concerned less with the production process than with the sales made by industrialists to wholesalers. This changes when the bank begins to provide the industrialist with capital for production. When it does this, it can no longer limit its interest to the condition of the enterprise and the market at a specific time, but must necessarily concern itself with the long-range prospects of the enterprise and the future state of the market. What had once been a momentary interest becomes an enduring one; and the larger the amount of credit supplied and, above all, the larger the proportion of the loan capital turned into fixed capital, the stronger and more abiding will that interest be.

At the same time the bank's influence over the enterprise increases. So long as credit was granted only for a short time, and only as circulating capital, it was relatively easy to terminate the relationship. The enterprise could repay the loan at the end of the turnover period, and then look for another source of credit. This ceases to be the case when a part of the fixed capital is also obtained through a loan. The obligation can now only be liquidated over a long period of time, and in consequence the enterprise becomes tied to the bank. In this relationship the bank is the more powerful party. The bank always disposes over capital in its liquid, readily available, form: money capital. The enterprise, on the other hand, has to depend upon reconverting commodities into money. Should the circulation process come to a halt, or prices fall, the enterprise will require additional capital which can only be obtained in the form of credit. Under a developed credit system, an enterprise maintains its own capital at a minimum; any sudden need for additional liquid funds involves obtaining credit, and failure to do so may lead to bankruptcy. It is the bank's control of money capital which gives it a dominant position in its dealings with enterprises whose capital is tied up in production or in commodities. The bank enjoys an additional advantage by virtue of the fact that its capital is relatively independent of the outcome of any single transaction, whereas the fate of the entire enterprise may depend entirely upon a single transaction. There may, of course, be cases in which a bank is so deeply committed to one particular enterprise that its own success or failure is synonymous with that of the enterprise, and it must then meet all the latter's requirements. In general, however, it is always the superiority of capital resources, and particularly disposal over freely available money capital, which determines economic dependency within a credit relationship.

The changed relationship of the banks to industry intensifies all the tendencies toward concentration which are already implicit in the technical conditions of the banking system. A consideration of these tendencies must again distinguish the three main functions of the banks: the supply of

commercial credit (circulation of bills), the supply of capital credit, and, anticipating somewhat, investment banking.

As regards commercial credit, the paramount factor is the development of international connections, which requires an elaborate network of relations. Foreign bills take longer to circulate and therefore immobilize a larger volume of resources. Furthermore, the balancing of payments through the mutual cancellation of bills is seldom so complete. Dealings in foreign exchange thus require a large and efficient organization.

> The important thing is that the banks tend to concentrate because of certain technical banking operations which are extremely important to growing industries. Foreign and domestic bills which industrial producers use to pay for raw materials and finished goods require an organization of the banking system sufficiently ramified to enable it to handle all transactions – especially foreign exchange operations – on a large scale, and also to guarantee their collateral. It requires, in other words, large banks with numerous foreign and domestic branches. It is true, of course, that industries use bills as a means of payment or to secure commercial credit. Institutions which furnish the credit do not thereby get a chance to intervene deliberately in the affairs of their debtor enterprises. In such a relationship between the bank and the enterprise, the bank's jurisdiction is limited to the reliability of the borrower and the discount return.[16]

In order to be profitable foreign exchange transactions must be closely linked with arbitrage operations. This requires extensive connections, and a large volume of liquid resources, because arbitrage must be carried out quickly and on a large scale to be profitable at all. Arbitrage transactions in bills are based on the fact that whenever, say, the London demand for Paris bills exceeds their supply and their price rises accordingly, firms which have deposits or credits in Paris will take advantage of the situation by drawing bills on Paris. The Paris firm, on the other hand, on which the bills have been drawn, waits for a similar favourable opportunity in that market to transfer the sums again to England.[17]

The fostering of capital credit can best be seen in the growing importance of current account operations.[18]

> These transactions play a significant part in the relationship of the banks to industry for three reasons: (1) Since they are so indispensable to the smooth expansion of an enterprise, they make it dependent on the creditor. (2) The technical complexities of bank credit for industry have a far greater influence on the organization of the

banking system than any of the credit operations we have discussed previously They create a tendency toward concentration in banking. The unique relation (of the banks) to industry . . requires new principles and an entirely new knowledge of industry on the part of bankers. (3) Finally, current account transactions for industry are the keystone for all other banking activities in industry, such as promotion and the flotation of shares, direct participation in industrial enterprises, participation in management through membership of the board of directors. In a large number of cases such activities are related to bank credit as effect to cause. [At the same time current account work] is an excellent means of judging the soundness of an industrial enterprise and of obtaining control over it; regularity of turnover means that the business is going well.[19]

The exact knowledge which a bank obtains as a result of this continuous relationship can also serve it in good stead in many other ways; for example, in its business on the stock exchange. On the other hand, the danger of over-extending credit makes it necessary for the bank to exercise a high degree of control over the industrial enterprise, and this presupposes that the enterprise works in association with a single bank.

If the concentration of bank capital tends to increase along with the expansion of industry when the banks simply provide credit, it reaches its zenith when they take over the job of floating shares. The large bank enjoys an unmistakable superiority in this activity because it can undertake the most profitable operations. Its transactions are more numerous, on a larger scale, and more efficient. Its flotations are more secure, and it can sell a large part of the issue to its own customers On the other hand, the large bank must be able to provide the even greater sums of capital which may be required; and for this purpose, it needs a large capital of its own and a great deal of influence on the market.

The large bank is able to choose the appropriate time for issuing shares, to prepare the stock market, thanks to the large capital at its command, and to control the price of shares after they have been issued, thus protecting the credit position of the enterprise. As industry develops, it makes increasing demands on the flotation services of the banks. Once the mobilization of capital is assured, only one condition governs the expansion of industry; namely, the technical possibilities. The expansion of enterprises also ceases to depend upon their own surpluses resulting from production, and indeed during periods of prosperity an industry may grow rapidly, often by leaps and bounds. The sudden increase in the demand for capital which such expansion involves can only be satisfied by the large, concentrated funds of the banks. The banks alone can

obtain the capital without disrupting the money market. This operation can be carried out only if the capital which the bank provides is recovered quickly, or if the issue is performed as a simple book-keeping transaction, which will more probably be the case if the bank sells the issue to its own customers and receives the proceeds of the sale by deducting them from deposits, thus reducing its liabilities.

The technique of banking itself generates tendencies which affect the concentration of the banks and of industry alike, but the concentration of industry is the ultimate cause of concentration in the banking system.

6

The rate of interest

In the capitalist system of production, every sum of money is able to function as capital, that is, to produce a profit, so long as it is made available to productive capitalists.

> Take it that the average rate of profit is 20 per cent. In that case, a machine valued at £100, employed as capital under the prevailing average conditions and with an average exertion of intelligence and adequate activity, would yield a profit of £20. In other words, a man having £100 at his disposal holds in his hands a power by which £100 may be turned into £120. . . . He holds in his hands a potential capital of £100. If this man relinquishes these £100 for one year to another man who uses this sum actually as capital, he gives him the power to produce a profit of 20 per cent, a surplus value which costs this other nothing, for which he pays no equivalent. If this man should pay, say £5, at the close of the year to the owner of the £100, out of the produced profit, he would be paying for the use value of £100, the use value of its function as capital. . . . That part of the profit which he pays to the owner is called interest. It is merely another name, a special term for a certain part of the profit which capital in the process of its function has to give up to the owner, instead of keeping it in its own pocket.
>
> It is evident that the possession of £100 gives to their owner the power to absorb the interest, a certain portion of the profit produced by his capital. If he did not give the £100 to the other man, then this other could not produce any profit, and could not act in the capacity of capitalist at all with reference to these £100.[1]

From the standpoint of the owner of money, the money he lends is capital because it returns to him after a time in an increased amount. Capital, however, can acquire an added value only in production, through the exploitation of labour-power, and the appropriation of unpaid labour. Consequently, the money capital of the lenders cannot yield a profit unless it becomes the money capital of producers and is used in production. The

profit which results is now divided, one part returning to the loan capitalist as interest, the other remaining with the productive capitalist. Under normal conditions, therefore, profit constitutes the upper limit of interest because the interest is a fraction of profit. This is the only possible relationship between interest and profit. On the other hand, interest is not some definite fixed part of profit. The level of interest depends upon the demand for and supply of loan capital. It is possible to conceive, and formulate the bases of, capitalist society on the assumption that money owners and productive capitalists are identical, or in other words, that all productive capitalists have at their disposal the necessary money capital. In that case, there would be no such thing as interest. But capitalist production without the production of profit is inconceivable; the two mean the same thing. The production of profit is both the condition and the purpose of capitalist production. Its production of surplus value (embodied in the surplus product) is determined by objective factors. Profit arises directly from the economic relationship, from the capital relationship, from the separation of the means of production from labour, and from the opposition of capital and wage labour. Its size depends upon the new value which the working class produces with the available means of production, and upon the division of this new value between the capitalist class and the working class, which, in turn, is determined by the value of labour power. We are dealing here with factors which are determined in a completely objective manner.

Interest, however, is another matter. It does not arise from an essential feature of capitalism – the separation of the means of production from labour – but from the fortuitous circumstance that it is not only productive capitalists who dispose over money. In consequence, the whole money capital need not enter the cycle of the individual capital at all times, but may lie idle occasionally. What part of the profit the loan capitalists can appropriate depends upon the changing level of producers' demand for money capital.[2]

If interest is determined by supply and demand, we have to ask how supply and demand themselves are determined. On one side there is a sum of money temporarily lying idle but seeking investment; and on the other, the demand of the capitalists for money which can be converted into capital for use in production. Capital credit makes this allocation, and the state of the capital market determines the rate of interest. At any given moment, a definite sum of money, which represents the supply, is available to capitalist society, and on the other side, there is at the same time a demand for money capital arising from the expansion of production and circulation. In other words, the 'loan price of money', or rate of interest, at any given time is determined by the confrontation on the market between supply and

demand as two determinate magnitudes. This determination of the rate of interest presents no further problem, and difficulties only arise when we begin to analyse fluctuations in the rate of interest.

This much, at least, is clear; that an increase in production and thus in circulation means an increased demand for money capital which, if it were not matched by an increased supply, would induce a rise in the rate of interest. The problem is that the supply of money would also change along with, and precisely because of, the change in demand. The quantity of money which constitutes the supply comprises two elements: the available cash, and credit money. In our analysis of commercial credit, we found it to be a variable quantity which increases when production increases. This involves an increased demand for money capital, but the increased demand is accompanied by an increased supply in the form of credit money generated by the expansion of production. Hence the interest rate will change only if the demand for money capital changes more than the supply; it will rise, for instance, if the demand for money capital increases more rapidly than the supply of credit money. Under what conditions is this likely to occur?

In the first place, any increase in the quantity of credit money requires an increase in the cash reserves which are needed to ensure that credit money can always be converted. Further, an increase in the circulation of credit money is accompanied by an increase in that part of the total cash supply which is needed to settle uncleared balances. An increased circulation, moreover, is accompanied by an increase in the number of transactions in which credit money plays only a minor part: wage payments to workers and payments for increased retail purchases, for instance, are usually made in cash. Thus the sums available for lending tend to be reduced because part of the cash is needed for these other purposes. Finally, it should be noted that the increase in credit money will lag behind the requirements of increasing production and circulation when the marketing of goods ceases or slows down at the end of a period of prosperity. For this means that the bills drawn against commodities will no longer cancel out, and that at the very least their period of circulation will increase. But if the bills that fall due do not cancel each other out they must be settled in cash. The various forms of credit money (bills, and bank notes issued on the basis of such bills) can no longer perform their money functions, the circulation of commodities, on the same scale as formerly. There is an increased demand for cash to redeem commercial paper, and at the same time to make up the reduced supply of credit money in actual use. It is this demand for cash which brings about the rise in the rate of interest.

If the absolute level of the interest rate thus depends upon the state of the capital market, fluctuations in the rate of interest depend primarily upon

the state of commercial credit. A closer analysis of these fluctuations belongs more properly to a discussion of the trade cycle, and will be presented in that connection.

I am not in complete agreement with Marx's view that variations in the rate of interest depend upon the supply of capital which is loaned in the form of money, cash and notes. He states:

> The variations of the rate of interest (aside from those occurring over long periods or from differences of the rate of interest in different countries; the first-named are conditioned by the variations of the general rate of profit, the last named by differences in the rates of profit and in the development of credit) depend upon the supply of loan capital, all other circumstances, state of confidence etc., being equal; that is, of the capital loaned in the form of money, hard cash and notes; this is distinguished from industrial capital which, in the shape of commodities, is loaned out by means of commercial credit among the agents of reproduction themselves.[3]

This leaves open the question of how large the volume of bank notes can be. For England, whose situation Marx evidently has in mind, the answer is, of course, given by the legal provisions of the Peel Act, according to which the total volume of cash and notes is constituted by the cash in circulation, the gold reserve of the Bank of England, and £14,000,000 in notes, being the volume of unsecured notes in circulation. In fact, these notes assume the function of state paper money to the extent that they represent – or at least represented in Peel's day – the minimum of circulation replaceable by money tokens. Thus the law provided once and for all that the quantity of bank notes should remain at a prescribed figure. But if we put the question in a more general form, variations in the rate of interest depend upon the supply of loanable money. All money, however, can be loaned which is not in circulation. There is in circulation, first the money tokens, covering the minimum requirements of circulation, and second, a certain quantity of gold. The remainder of the gold is in the coffers of the bank or banks, serving partly as a reserve for domestic circulation, and partly as a reserve for international circulation (since gold must perform the function of international money). Only experience can show the minimum quantity of gold required for these two purposes. The remainder can be loaned out, and in the final analysis constitutes the supply whose use determines the rate of interest. But the extent to which it is employed depends upon the state of the commercial credit advanced by producers to one another. As long as this commercial credit can increase fast enough to satisfy the increased demand, the rate of interest will not change. We should not forget,

however, that the greater part of the demand is satisfied by a supply which increases together with the demand. The bulk of credit is commercial credit, or as I prefer to call it, 'circulation credit', and both the demand for and the supply (or if you wish, means of satisfaction) of such commercial credit increase together, and *pari passu* with the expansion of production. The expansion of credit is possible without any effect on the rate of interest, and indeed occurs at the beginning of a period of prosperity without such effects. The interest rate first begins to rise when the gold holdings of the banks are reduced and the reserves approach the minimum requirements, forcing the banks to raise their discount rate. This happens at the peak of the trade cycle because circulation then requires more gold (with the growth of variable capital, of turnover generally, and of the amount needed to settle balances). The demand for loan capital becomes greatest precisely when the stock of gold is at its lowest point owing to the absorption of gold by the requirements of circulation. The depletion of the gold stock available for loans becomes the immediate occasion for an increase in the bank discount rate, which in such periods becomes the regulator of the rate of interest. The purpose of raising the discount rate is precisely to bring about an influx of gold. The various restrictions imposed by misconceived banking legislation only have the effect of bringing about the higher discount rate sooner than purely economic conditions require. The mistake of all such restrictions is that in one way or another (indirectly in Germany, directly in England) they underestimate the minimum required in circulation and thereby limit the supply of loan capital.

It follows, then, that the rate of interest would show a downward tendency only if it could be assumed that the relation of the existing gold stock to the demand for loan capital is always becoming more favourable, that is to say, that the gold stock increases more rapidly than the demand for loan capital. But if we consider only developed capitalist systems, such a tendency for interest rates to decline steadily cannot be established.[4] Nor can it be postulated theoretically, because simultaneously with the increase in the gold reserve and in the minimum of circulation there is an increase in the amount of gold entering circulation in a period of prosperity.

A fall in the rate of profit would involve a decline in the rate of interest only if interest were a fixed part of profit; but this is not the case. At most, a decline in the rate of profit means that there has been a reduction in the theoretical maximum level of interest, namely the total profit. But this is of no significance, because interest does not generally reach this ceiling in the long term.[5]

But there is another important factor which should not be overlooked. In a developed capitalist system, the rate of interest is fairly stable, while the rate of profit declines, and in consequence the share of interest in the total

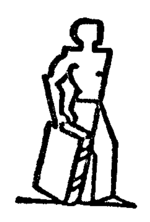
profit increases to some extent at the expense of entrepreneurial profit. In other words, the share of rentiers grows at the expense of productive capitalists, a phenomenon which does indeed contradict the dogma of the falling interest rate, but nevertheless accords with the facts. It is also a cause of the growing influence and importance of interest-bearing capital, that is to say, of the banks, and one of the main levers for effecting the transformation of capital into finance capital.



The EMPIRE of HIGH FINANCE

By VICTOR PERLO

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NEW YORK
INTERNATIONAL PUBLISHERS

Part One: Structure

CHAPTER I

Introduction

Four banks and insurance companies have more combined assets today than all American financial institutions did in 1912. Ten industrial corporations make more taxable profits than all such companies did in the boom year 1929.

Monopoly!—ever larger, ever more powerful, looming over the lives of the people. Small businessmen, their share curtailed and areas of operation narrowed, operate under its terms and are transformed into its hired managers. Farmers are impoverished by its price scissors and squeezed off the land by its mortgages. Each year millions of workers suffer periods of unemployment as corporate giants shut down plants in slack periods. Old communities become ghost towns when corporate head offices in New York decide to move their main industries to low-wage areas.

Monopoly!—all pay it tribute through labor, through rising prices and debts, through taxes levied under its rules and mainly for its benefit. And hundreds of millions residing abroad in the economic grip of American big business pay their toll into the same coffers.

Monopoly!—destroying the security of all. How safe is the famous "American standard of living" in an economy teetering between the brinks of war and depression? These twin evils of modern times have not been cured by the growth in monopoly power and technique, but have been rendered more devastating than ever before.

The fight against entrenched wealth has been a central theme of our country's political history. At the start Thomas Jefferson, advocate of democratic government, stood for an independent citizenry of farmers and artisans, untrammeled by centralized financial and merchant capital. His antagonist Alexander Hamilton, the monarchist, stood for rule by banker, merchant and manufacturer, with government their

servitor. The contest between the social forces these men represented continued for decades. The democrats at first won the political victories, contributing much to the rapid growth of the country, to what is good and healthy in our traditions and institutions. But they could not win final economic victory. The logic of capitalism dictated that small enterprise should give way to large, that independent farms and factories should be squeezed by great banks and railroads.

Industry multiplied after the Civil War, and soon monopolies appeared in oil, sugar and railroads, dwarfing anything dreamed of by the Hamiltonian empire-builders. The newest social class, the factory wage-earners, now became prominent politically. Gathered by the thousands on the job, onerously oppressed over a 12 to 14-hour working day, labor strove for organization and for means to deal effective blows at monopoly. The general strike of American workers for the 8-hour day, on May 1, 1886, is celebrated all over the world as a landmark in the modern labor struggle.

Millions advocated new and radical doctrines, which attacked the sanctity of concentrated private property—Populism, the Single Tax, Socialism. Anti-monopoly forces obtained great influence in the Democratic Party, and came close to national electoral victory in the 1896 campaign of William Jennings Bryan.

The fight was lost, but its imprint on American life remained. Congress passed an anti-trust law establishing an official policy against monopoly. True, it was passed as a concession to the public, and its enforcement has been sidetracked by defenders of vested interest controlling the government. But even the most reactionary Administrations have had to pay tribute to the vitality of anti-monopoly sentiment in America by lip-service to free competition, and by a pretense of "vigorous prosecution" of monopoly.

In this century the anti-monopoly movement gathered strength in the Socialist Party slogan "Let the Nation Own the Trusts," in the political campaigns of the Bull Moose and La Follette Progressive parties, and finally in the New Deal of the 1930's. For the first time labor succeeded in organizing powerful, lasting unions embracing the majority of workers in trustified heavy industry. With this backing, President Franklin D. Roosevelt's Administration put into effect a whole series of anti-monopoly measures, including humanitarian reforms designed to protect labor and farmers from destitution and unrestrained exploitation.

But the economic domination of monopoly was not shaken. As events soon showed, big business emerged from the Second World War

more powerful than before. New Deal efforts to "drive the money-changers from the Temple" were inadequate in concept, in content, and in enforcement.

They started from the traditional concept of supporting scattered private enterprise against concentrated private enterprise. But, while small business exists and will continue, its subordination and defeat is complete and final. The centripetal forces of capitalist economy, spurred by modern technology, spell its doom.

New Deal measures were limited in content to attacks on particular malpractices, but did not menace the basic structure of centralized control. The engines of vested interest, skirting the roads that were blocked, moved onwards through the many other roads in the dense network of interlocking connections they had established, and rushed to completion new roads paved smoother than those closed off.

The reforms were limited in enforcement, first by the protection given to monopoly by the courts, and then by the capture of the responsible administrative posts in the new regulatory agencies by representatives of the very forces these agencies were supposed to restrain.

During and since World War II the anti-monopoly battle has been at a low ebb. That it will revive, multiplied in strength and effectiveness, is an historical certainty. Indeed, there is almost universal agreement that the people will not go through another major depression without insisting on changes much more fundamental than those of the 1930's. War or threats of war, large-scale military production and activity, have become a continuous feature of the system. With the knowledge of modern weapons and their destructiveness sinking into the consciousness of the people, they will not long tolerate this Sword of Damocles hanging over them.

The fact that a few hundred or at most a few thousand men of wealth determine the destinies of the nation, and are guided in so doing by the overriding principle of increasing their own profits, will some day become clear to the public. And the American people will not indefinitely tolerate economic royalism any more than they would political monarchy.

But what can we do about it? If previous attempts failed to prevent monopoly from growing bigger and stronger, what guarantee is there that history will not repeat itself?

One requisite is to understand the nature of the empire of high finance. This is all the more important nowadays because the public is asked to believe that the system has been completely transformed.

We are exposed to distortions in newspapers and broadcasts, in the speeches of politicians and the books of professors. Is a great company, employing hundreds of thousands of workers and accounting for more than half the total output in its field, a monopoly? Heavens, no! It is a public corporation owned by the multitudes. Is it run for private profit? The profits are merely incidental. It is run for service to the consumer.

Is a New York bank with billions of deposits, with ties to thousands of small banks all over the country and to even larger insurance companies, with directors on the boards of a hundred corporations, a pinnacle of unrestrained power? No longer. It is a well-behaved and modest financial agent of the depositing public and of national financial policies.

Is a man owning, with his family, billions of dollars worth of corporation shares a robber baron and an economic royalist? Not today. He has been transformed into a philanthropist and an industrial statesman. Is it true that Senators are bought by vested interests, and that the Executive is infested with those placed there by the upper crust and taken out of the top drawer? Don't believe it. Government is hostile to business, and its regulations assure against all abuses.

Do we live under capitalism, a capitalism which has long since reached its monopoly stage, which has been replaced by socialism in some countries, and which is threatened by the same fate in many others? Not us. We have something entirely different, strictly American. We have a "People's Capitalism," in which the common man owns the great corporations, poverty is eliminated, and the rich man is taxed down to the level of the mass—or so we are told.

Sophisticates may laugh, but the arguments must be answered. For the theses of "People's Capitalism" are proclaimed through all channels of communication. They are produced with the slick tricks of modern advertising. They are sometimes backed with seeming documentation as impressive as it is distorted. And they have confused, confounded, and misled millions. They have won partial, if begrudging acceptance, even from conscious foes of monopoly. Some have been unable to see through all the tricks of propaganda, or to resist the blandishments of theories sanctified by the most respected academic circles and repeated so frequently as to acquire the status of dogma.

What has really happened since the turn of the century, when the newly formed steel trust appeared to be the ultimate in monopoly, and since the years of frenzied finance which culminated in 1929? Actually the share of the giants has increased, and concentration has

become the rule in many fields formerly left to smaller enterprise. Monopolistic devices have become more effective in keeping out or eliminating competitors, and in making products more expensive to the public.

The power of monopoly has extended far beyond our own borders. Tens of billions of dollars invested in all capitalist countries, and backed by the armed might of hundreds of foreign military installations, yield billions in additional profits yearly to the very largest trusts.

The ties which interlock the monopolies have become tighter and more complex. The control of corporations is more and more centralized in knots of financial power—the banks and allied institutions, and the banker-industrialists and industrialist-bankers who run them. Control itself has become an object of major importance, bringing forth a rate of profit many times that accruing to the ordinary investor.

Those in the main positions of control determine the destinies of tens of corporations employing millions of workers. Eight prime centers of power have emerged, dividing among themselves most of the major companies and most of the profits. Through command of these systems, a few families have acquired wealth beyond all previous reckoning; they have become, literally, multi-billionaire families.

These empires of high finance do not have fixed boundaries. United in plunder, the rulers are rarely long agreed on its division. The interests of one group extend into the areas of others, and many corporations are divided in control. Corporate raids and mergers break out of the continuous behind-the-scenes maneuvers, through which boundaries of empire and power balances are shifted. The battles for supremacy embrace political as well as economic means, and involve major government policies affecting the entire population.

For the government and the main political parties have become increasingly merged—or submerged—in this corporate power structure. New forms of big business organization and operation have arisen, in which the line between "private" and "government" is indistinct. This trend is associated with the militarization of the entire economy. "Military necessity" becomes the excuse for the most outrageous use of government power to advance private profit interests. Military business has become permanently important to many industrial corporations, and to the big banks and insurance companies absorbing interest from the war-swollen government debt.

Washington, Incorporated, has become the alter ego of Wall Street—with a common board of directors. Positions on the Washington board become the most lucrative prizes in the battle for larger business

empires and profits. With military business at the core of government, and foreign investment the source of extra profits for the plutocracy, control of foreign policy has become the pivot of the power struggle. Political rule by big business centers around the ominous issue of war or peace, with its alternatives of atomic death or survival for the population.

This vast corporate-government structure is not operated in a planned and unified way. It works chaotically, under economic laws which the rulers of monopoly are powerless to abjure. It is subject to economic crisis, and is affected by international political crises, by domestic opposition, and by conflicts of interest among the ruling groups.

The whole giant network of corporate monopoly, involving the mechanically integrated labors of tens of millions, is run for one basic object: the realization of private profits by those in the positions of control. This object is out of harmony with the interests of the millions, renders impossible the smooth functioning of the entire machinery, and undermines the biggest boom in history. An old contradiction, this has grown to monstrous proportions with the extreme centralization of economic power.

Its effects are felt in the strain and stresses of the cold war, in such political perversions as the witchhunt and segregation, in poverty and human suffering here and abroad. These evoke resistance, better organized on a world scale than ever before. Internationally this resistance has warded off, for the moment, the danger of hydrogen war. At home it has improved the conditions of millions of people, and set limits to the exploitation of labor and the oppression of minorities.

But these checks are temporary. A fundamental change is needed to permanently avert dangers to the people, and to realize the unlimited possibilities for the good life inherent in the mechanical advances of society and the growth of scientific knowledge.

My previous book on American imperialism* examined present-day monopoly capitalism primarily in its international aspect, as a system of foreign expansion and aggression, and as the main source of the war danger following World War II.

The present volume concentrates on the domestic structure and operations of monopoly capitalism. This is a big subject, and the book does not treat all of it. The cartels and price-fixing arrangements, the methods by which distributors are subordinated to manufacturers, and

* *American Imperialism*, International Publishers, 1951.

farmers to processors, have been well covered in many works. They are not emphasized here.

Attention is focused on the most decisive, and most confused and obscured, aspect of economic concentration, *finance capital.* By this is meant the linking of banking and industrial monopolies and monopolists into super-monopolies which tower over even the greatest of the industrial combines.

Popular opposition to monopoly has traditionally seen this as the key, and concentrated its fire against the "money power," against "Wall Street." Farmers saw the bankers depriving them of their livelihood through mortgage foreclosures. Weaker manufacturers saw how New York financiers organized the trusts that strangled them. Workers saw how the golden network broke their strikes, bringing into play the press, police, troops, and credits to the employers.

Part One of the present volume deals with the relations between finance and industry, the character and fruits of corporate control, the functioning of different kinds of financial institutions in the power network, shifts in influence and battles for control among the high and mighty.

Part Two deals with the main financial empires, the scope and particular characteristics of each, their alliances and conflicts, the changes in power among them and the reasons therefor.

Part Three deals with the relations between government and big business, the financial rulers as directors of the affairs of state, the competition for leadership in this respect, the fabulous mushrooming of the world empire of American high finance, and the impact of this on vital issues of foreign policy.

It is the aim of this book to increase public understanding of the structure and operations of American monopoly capitalism. As this is written, there are signs of a resurgence of anti-monopoly sentiment, reviving the great anti-trust traditions of the American people. Today, the people can prove more effective than heretofore in reducing the power and profits of monopolies, and thereby can safeguard their own livelihoods, liberties, and lives from the harmful effects of modern capitalism and its policies. In the process, they will find the road to the ultimate elimination of private monopoly in America.

CHAPTER II

Wall Street Still Rules

THE GREAT WAVE of mergers at the turn of the century stimulated an outpouring of literature which exposed the operations of the trusts and their financial promoters. The works of Gustavus Myers, Ida Tarbell, Charles Edward Russell, H. D. Lloyd, Lincoln Steffens, Frank Norris, Louis Brandeis, and others aroused the indignation of millions at the methods used by the trust builders. The approach was typified by the title of Russell's *Lawless Wealth.* Disdaining traditional laws and standards of behavior, the "robber barons" were plunging ahead to take the profits and control the policies of the entire economy.

These writers were known as "muck-rakers." They were not, however, dealing in petty filth. They were disclosing a historical process whereby a few men took to themselves the wealth built by an entire nation. Some writers in this tradition did not fully realize that the masters of capital were more than "robbers" and "conspirators." They were also agents of a historical process in which this robbery became the law and order of economic life.

Capitalism became transformed into monopoly capitalism. The rules and procedures of economic life were revised and adapted to the needs of monopoly.

CONCEPTS OF MONOPOLY STRUCTURE

A deeper understanding was necessary so that people could know where they were and where they were going, so that they could learn how to deal effectively with the problems created by monopoly capitalism.

An approach to this was made by John Moody, a chronicler of the feats of the trust builders, rather than a critic. In 1904 he published

The Truth about the Trusts, which drew the lines of financial control, establishing the domination of the many industrial trusts by a handful of Wall Street centers. The broad sweep of financial empires, and a summary of their methods of operation, were described by the Pujo Committee of the House of Representatives following an extensive investigation in 1912-13.

The fuller elaboration of the theory of modern monopoly was the work of Europeans, who studied its operations in many countries. The English liberal, J. A. Hobson, showed that modern monopoly was "imperialism," that it included the conquest and exploitation of weaker countries, with highly significant effects on life in the "mother" countries. Rudolf Hilferding, the Austrian Marxist, developed the theory of "finance capital," showing the role of the great banks as the promoters and key factors in monopoly, and stressing the "personal union" between banking and industrial monopolies. V. I. Lenin, the Russian revolutionary, drew together these lines of analysis in a short work called *Imperialism, the Highest Stage of Capitalism.* Lenin viewed monopoly as a world system, a stage of capitalism featured by war and decay, which would inevitably be replaced by socialism. Prophetically, he wrote this book a year before the Russian revolution.

The European theoretical works, in turn, influenced later analyses of concentration in America. The great crisis of the 1930's stimulated the most serious research into the causes of the disaster. Among the products were works explaining the operations of American monopoly as a system, rather than as an aberration.

Matthew Josephson, in a series of historical books, showed the connections between economic monopoly and political monopoly in America. He laid bare the anatomy of a democracy corrupted by systematic financial controls, but showed this also as part of a process, rather than as a narrowly conceived conspiracy.

Harvey O'Connor, John K. Winkler, and others wrote a series of exposés of particular financial groups. While in the muck-raking tradition, these works rose above it. They presented the role of monopoly more fully. Pre-World War I writers stressed the tribulations of small business squeezed by monopoly. O'Connor showed that labor was the main victim, and had the power to lead in curbing monopoly. His works were geared to and helped the valiant campaign of American labor to organize the open shops of steel, auto, and other key industries.

The outstanding theoretical work of the 1930's was Anna Rochester's *Rulers of America* which examined the relationship between finance and industry, and the structure of monopoly control as it then existed.

Miss Rochester's book set the stage for more detailed analyses by New Deal Government bodies, particularly the National Resources Committee, in whose work Paul Sweezy played an important role, and the exhaustive hearings and reports of the Temporary National Economic Committee (TNEC).

Franklin Roosevelt established this body to investigate ways of more effectively combating monopoly. Chances of its findings bearing immediate fruit were dashed by the outbreak of World War II.

But these scientific works of the 1930's contain much that will be useful when the American people again approach the task of dealing with monopoly power. And they led to a much wider public knowledge of the true scope and character of big business than had formerly prevailed.

A great war, an enormous extension of the influence of American monopoly, and a doubling of its industrial plant, has brought significant changes. Twenty years after publication of *Rulers of America*, with anti-monopoly battles of even greater consequence than those of the New Deal period in the offing, a fresh look and an attempt at a fuller understanding of the economic and political workings of big business are in order.

FINANCE CAPITAL

In the thinking about this subject, there has been a common thread of understanding among serious students of different political viewpoints and nationalities.

Moody, the admirer of Wall Street, anteceded the term, finance capital, but the idea was clearly there:

> Therefore, viewed as a whole, we find the dominating influences in the Trusts to be made up of an intricate network of large and small groups of capitalists . . . all being appendages to or parts of the greater groups, which are themselves dependent on and allied with the two mammoth or Rockefeller and Morgan groups. These two mammoth groups jointly . . constitute the heart of the business and commercial life of the nation, the others all being the arteries which permeate in a thousand ways our whole national life, making their influence felt in every home and hamlet, yet all connected with and dependent on this great central source, the influence and policy of which dominates them all.[1]

Lenin, the Marxist, put it in this way in his description of the features of imperialism: "The merging of bank capital with industrial capital, and the creation, on the basis of this 'finance capital,' of a 'financial oligarchy.'"

The banks have been transformed from "modest intermediaries" into:

powerful monopolies having at their command almost the whole of the money capital of all the capitalists and small business men and also a large part of the means of production and of the sources of raw materials of the given country and in a number of countries. . . .

Finance capital, concentrated in a few hands and exercising a virtual monopoly, exacts enormous and ever-increasing profits from the floating of companies, issue of stock, state loans, etc., tightens the grip of financial oligarchies and levies tribute upon the whole of society for the benefit of monopolists.[2]

The reform President, Franklin Delano Roosevelt, wrote: "Among us today a concentration of private power without equal in history is growing."

After presenting statistics concerning the growth of monopoly in industry and wealth, he went on:

Even these statistics . . . do not measure the actual degree of concentration of control over American industry.

Close financial control, through interlocking spheres of influence over channels of investment and through the use of financial devices like holding companies and strategic minority interests, creates close control of the business policies of enterprises which masquerade as independent units.

That heavy hand of integrated financial and management control lies upon large and strategic areas of American industry. The small businessman is unfortunately being driven into a less and less independent position in American life.[3]

RISING INDUSTRIAL CONCENTRATION

A whole series of government reports establish the fact of continually rising concentration in industry. True, a number of economists have tried to discredit these studies. They have been answered by such economists as Corwin Edwards, John Blair, George Stocking, and Myron Watkins, and perhaps most systematically in the Labor Research Association pamphlet *Apologists for Monopoly.*

Attempts to manipulate away the basic facts about concentration have diminished since 1951-52, owing to a new wave of mergers and the general growth of monopoly which has made such attempts quite futile. For our purposes it is sufficient to cite key summary statistics to illustrate the growth of monopoly in industry. In 1920, the 200 largest non-financial corporations obtained 33.4% of total non-financial corporate profits, in 1929, 43.2%, and in 1955, 57.4%.[4]

The share of the 200 largest manufacturing corporations in total manufacturing sales rose from 37.7% in 1935 to 40.5% in 1950 and

45.5% in 1955.[5] During the first 15-year interval, including most of the New Deal period, the increase in concentration was comparatively slow. The anti-monopoly legislation of the Roosevelt Administration had not turned back the trend towards monopoly, but merely slowed its growth. By the 1950's the limited practical effect of these laws was cancelled out by a government hostile to its purposes. Concentration increased almost twice as much in five years as it had during the previous fifteen years.

Today defenders of the system generally concede its monopoly character. Berle, for example, speaks of the state of American industry as representing "a concentration of economic ownership greater perhaps than any recorded in history . . . a system, industry by industry, in which a few large corporations dominate the trade. Two or three, or at most, five, corporations will have more than half the business, the remainder being divided among a greater or less number of smaller concerns who must necessarily live within the conditions made for them by the 'Big Two' or 'Big Three' or 'Big Five' as the case may be."[6]

True, Berle defines these giants as "concentrates," and various academic economists call them "oligopolies," to distinguish the situation described above from one in which a single company makes *all* of a given product. However, we here are not concerned with these academic niceties. The power and functioning of the "Big Twos" and "Big Fives" is of the same kind as that of the "Big Ones" (which do exist for a number of important products). The popular term monopoly is the correct one to describe the real situation.

Important features of growing industrial concentration are not revealed by statistical measurement. Some of these are discussed in Chapter VI. Furthermore, the pace of concentration in finance has been far more drastic than in industry.

In New York City, according to a Congressional report, the share of the four largest banks in deposits increased from 21% in 1900 to 60% in 1955.[7] Most of the increase in concentration occurred after 1929. Nor was the process limited to New York: "in 10 of the nation's 16 leading financial centers, 4 banks own more than 50 percent of all commercial bank assets. In 9 of these financial centers, 2 banks own more than 60 percent."[8]

The Mellon Bank in Pittsburgh, the Bank of America in San Francisco, and the First National Bank in Boston each control more than half the assets in their respective cities.

With all the multiplication of financial activity, the total number of banks in the country fell from 30,419 in 1921 to 25,113 in 1929 and

14,243, in 1955.[9] And the 10 largest banks increased their share of the national business from 10% in 1923 to 21% in 1955.[10]

Monopoly is more complete in finance than in industry, it grows more rapidly, and the all-important links between financial and industrial monopolies have been strengthened.

One must examine the financial world to find the control center of American monopoly. But it is exactly at this point that the academicians and publicists have failed most dismally. With scarcely any exceptions, they have either ignored the whole question since World War II, or presented a Pollyanna view of American finance having no relation to reality.

APOLOGETICS OF THE VANISHING BANKER

During the democratic movement of the New Deal period, the masters of capital, while not relaxing their grip in any respect, dropped a heavier curtain of secrecy around their operations, adopting a pose of innocent servant of industry and of government.

Experts bending to the reactionary political winds came forward to give the blessings of "science" to the supposed demise of "Wall Street," and the apologetics became bolder even as the financiers returned increasingly to the center of the stage after World War II.

Professor R. B. Heflebower, using the typical academic approach, concedes that the bankers once organized giant economic empires: "But that influence was never as strong in manufacturing as in railroads and has waned materially."

In his view, "an operating economic oligarchy" no longer exists.[11] Berle, the liberal corporation lawyer who developed the theory of the "corporate soul," claims that power has shifted from banks and investment houses to industrial managers, and holds that the picture of a central group of "interests" is "a bogeyman set up by demagogues."[12]

What are the arguments advanced by most of these writers? They are:

1. The bankers' voice in industrial affairs has become insignificant.
2. Industrial corporations have become so powerful in their own right that they no longer depend on banks for funds, and are run by a new group of "industrial managers."
3. Government regulation and "hostility" prevents financial domination.

The basic facts about the growth in the scope of financial institutions

undercut all of these arguments. Raymond Goldsmith, a conservative economist, provides a convenient summary in a recent monograph. He estimates the national wealth in 1949 at $898 billion, of which the banks, insurance companies, and other financial institutions held $432 billion, or almost half.[13] These financial assets were multiplied 23 times in a half century. More significant was the increase in their share of the national wealth. In 1900 they owned 21%, in 1929, 35%, and in 1949, 48%.[14] The bankers increased their power not only during the period of open manipulations, mergers, and pyramiding of fortunes that culminated in the stock market crash of 1929. They increased it even more rapidly thereafter, when a "hostile government" and the "managerial revolution" were supposedly sapping their strength!

When we differentiate among various kinds of wealth, the rising share of the financial oligarchy is even more impressive. Securities, in modern capitalism, are the decisive claims to ownership and control of industry. In 1900 the financial institutions held 23% of all securities; in 1929 this had increased only to 26%. But by 1949 it had risen to 58%.[15] The huge wartime rise in the federal debt, mainly held by the banks, contributed to this, but the post-1929 rise in the bankers' share of corporate securities was almost as dramatic.

As is typical of those National Bureau publications which contain significant information, the author is constrained to avoid explaining the meaning of his findings except in the most innocuous and generalized fashion. Thus Goldsmith says: "From the economists' point of view, the development of financial intermediaries and the trend of their share in national assets and wealth deserve attention as an indication of the extent and character of financial interrelations, which in turn help to determine how capital expenditures are financed and how existing assets are shifted among owners."[16]

But the lesson which Goldsmith did not draw is clear enough: The "extent and character of financial interrelations" has intensified greatly. The control of capital expenditures is more firmly than ever in the hands of the financial oligarchy, and "existing assets are shifted" more and more into their hands.

Here is more evidence, concerning the identity of the very largest, most powerful corporations. In 1935, out of 62 corporations with assets of over $500 million, 28 were banks and insurance companies, and they had 42% of the assets of the 62 giants.[17] Seventeen years later, in 1952, out of 66 corporations with assets of over a billion dollars, 38 were banks and insurance companies, and these had 64% of all the assets of the 66 giants.[18]

The share of profits siphoned off by the financial institutions has also increased. The after-tax profits of financial corporations (including real estate) increased from $0.9 billion in 1925 to $4.7 billion in 1952, and from 14% of the profits of all corporations to 24% of the total.[19] Under capitalism, profits are the ultimate arbiter of power and position. The ability of the financial corporations to extract a rising share of profits is the surest sign that the dependence of industry, and of capitalist society generally, on financial power has increased, and not diminished.

These growing shares of national wealth and income accrue to a smaller number of financial institutions, for, as we have seen, concentration of capital proceeds with especial rapidity in banking.

Now let us turn to the connecting links between finance and industry, and see whether the financiers have really been pushed out. Paul Sweezy, who did important work in the analysis of the structure of finance capital during the New Deal period, wrote in 1942 that bankers' power had become divorced from economic function, and "is bound to weaken and eventually disappear. . . . Bank capital, having had its day of glory, falls back again to a position subsidiary to industrial capital, thus re-establishing the relation which existed prior to the combination movement . . . today the entire banking system could be 'seized' in the United States, for example, without creating more than a temporary ripple in the ranks of big capital."[20]

The Federal Trade Commission in 1951 analyzed the interlocking directorates of the largest thousand industrial companies. In almost every basic industry, the financial corporations had more representatives than any other group. Among 727 interlocks of 112 machinery companies, 224, or 31%, were with banks, investment bankers, investment trusts, and insurance companies—an average of two financier-directors per machinery company. This government report commented:

> The high frequency of machinery company interlocks with financial institutions reflects the fact that the industry requires, particularly in its larger operations, huge aggregates of capital for plant and heavy equipment. Sources of finance capital have played significant roles in the formation, expansion, reorganization, consolidation, operation, and policy-making of many of the largest machinery corporations. These financial institutions also served as the prime connecting link among the leading machinery producers, as well as between machinery companies and their potential competitors or their potential suppliers or customers in other industries.[21]

There is really only one significant piece of evidence offered to prove the supposed weakening of financial-industrial links. That is

the increase in corporate self financing The theory of the financially self-contained corporation grew during the stagnant 1930's, when there was little expansion of capacity, and internal funds largely sufficed for the replacement of equipment that took place. However, in the boom after World War II, corporations turned increasingly to outside financing to keep ahead in the race for automation of production and expansion of capacity.

Owing to higher tax rates, large stockholders often prefer to collect smaller dividends, and reinvest profits without removing them from the corporate network. But the extent of dependence on outside funds remains larger than implied by Berle and others, and quite decisive in industrial expansion. Government tabulations show that in the 11 years 1946-1956, some 64% of gross capital spending was from retained profits and depreciation reserves, while 36% was from outside sources.[22]

To interpret these figures, it is necessary to analyze how the funds are used. Since World War II about half of corporate capital spending has been for replacement of obsolete and worn-out capital, and about half for expansion. The former is financed out of depreciation reserves, and to the extent necessary, out of retained profits. Comparatively little internal funds are left for expansion. Roughly and approximately, we have the following: as against the 50% of total spending for expansion, there is left 14% of internal funds and the 36% of outside funds which must be raised for the purpose. Thus the outside funds account for as much as 72% of the expansion capital.

This is the decisive part of the investment. It determines which corporation will get ahead, which must fall behind and either be absorbed through merger or wrecked through bankruptcy. The giant American Telephone and Telegraph Corporation borrows almost $2 billion yearly through financial institutions. There is hardly a major industrial company which has not gone to the capital markets since 1950. The debt of all corporations increased $111.5 billion or 131% in the decade after World War II, as compared with $35.6 billion, or 67% in the decade after World War I.[23]

Clearly, if there has been a satistical decline since the 1920's in the *proportion* of capital funds obtained through financial institutions, it has been insufficient to cause any qualitative change in the dependent relation of industry on these institutions. And this is only part of the story.

What many overlook is that the *merging* of financial and industrial capital means just that. This is expressed most directly in the owne

ship by the same groups of controlling shares in banks and industries, and the ownership by financial institutions of industrial shares. As shown in Chapter III, this has increased so markedly that in their totality, the relationships between big finance and big industry are more intimate than ever before.

THE AUTO INDUSTRY AND THE BANKS

Very well, some say the bankers are still powerful, but the really big industrial giants do not need them any more. General Motors, the corporation with the largest profits in the world, is an oft-cited example. It has over a billion dollars in net current assets, and until recently it was debt-free. Its erstwhile President, Charles E. Wilson is hailed as the man who rose to the top as a manager of a great industry, and thence to the Cabinet of the United States.

But actually General Motors and the auto industry as a whole provide an outstanding example of the interlocking of industrial and financial power, of the domination of great corporations by a financial oligarchy, and of the decisive weight of the banking element in crucial periods.

The auto industry is in the midst of a bitter power struggle. General Motors and Ford achieved outstanding gains during the years 1954-56; Chrysler absorbed serious losses. Meanwhile the "independents" dropped from 15% of the market in 1949 to 4.5% in 1955,[24] after having been reduced to two in number, the rest having been absorbed by mergers or forced out of production.

The battle rages in the field of capital expenditures, in distribution, in securing reliable sources of materials and parts, and in the striving for mergers and acquisitions. And in all of these areas of combat the financiers have the last word.

Consider the huge capital spending to reduce costs and locate factories more favorably, so that more horsepower and gadgets can be loaded into the "package" designed to win the customer's favor. General Motors and Ford threatened to squeeze out Chrysler partly because they were able to outstrip the latter in capital spending.

Until 1953, the major companies kept up the race from accumulated profits and reserves. But now this is not enough; the bankers must play a key role. General Motors borrowed $300 million. The largest industrial loan ever publicly floated up to that time, it was sold through a syndicate headed by Morgan, Stanley & Co. In a desperate attempt to catch up, Chrysler borrowed $250 million for 100 years from the

Prudential Insurance Co. (which has directors in common with the principal Morgan banks as well as with Chyrsler) and with its aid *did* regain some lost ground in 1957. Again in 1955, General Motors sold shares to existing stockholders for $329 million, with Morgan, Stanley underwriting the issue. Finally, at the beginning of 1956, The Ford Motor Company, which had always boasted independence of the bankers, authorized the Ford Foundation to sell 10,200,000 shares for $663 million dollars, through a large Wall Street syndicate headed by Blyth & Co. (connected with the First National City Bank). This sale of Ford shares did not directly make funds available to Ford Motors for expansion, but paved the way for future sales of shares for that purpose.

The role of banking is even more important in financing distribution of cars than in financing production. The corporation which can loan its dealers funds for cut-throat competition, and which can provide the easiest installment credit to car buyers, will survive and rise to the top.

General Motors, through the General Motors Acceptance Corp. and its Motors Holding Plan, has advanced $2 billion to car buyers and dealers. The dealers, backed financially by the corporation, can hold the stock of cars with which GM saddles them, can afford to slice their profit margins, and to engage in all sorts of sharp practices. Chrysler, until recently, had no scheme for financing its dealers, and the largest Chrysler dealer, Bishop, McCormick and Bishop, had to go out of business early in 1954, a serious blow to the Chrysler Corp.

But the extent of GM's financial backing of dealers and buyers is not a measure of its "independent" financial strength, but rather of the strength of the financial circles with which it is connected. At the end of 1955 General Motors carried an investment of $231 million in General Motors Acceptance Corp. But the banks and insurance companies had over $3 billion invested in GMAC. The banking investment in GMAC increased more than 15 times between 1947 and 1955.[25]

Combining the producing company and its sales subsidiary, new securities issues in the three years 1953-55 alone totalled $2,340 million.[26] *No industrial company has ever before gone so deeply into debt to the leading financial interests as General Motors has since World War II.*

Now let us turn to the internal structure of General Motors and the role of financiers within it. To begin with, General Motors today is itself more a financial holding company than an industrial corporation. Even without *any* outside banking funds, the ruling group in General Motors would be in truth a financial oligarchy. This is quite

apart from the widespread lending activities of General Motors, such as loans to steel suppliers, dealers, and customers. It is seen more basically in the much-advertised operating independence of the various manufacturing divisions.

What is the mechanism by which the top circles of General Motors coordinate the activities of its various divisions? Donaldson Brown, then vice-president and still a director of General Motors, wrote 34 years ago in a paper presented to the American Management Association:

> In the case of General Motors, the Board of Directors has two subcommittees, a finance committee responsible for general financial policies, and an executive committee responsible for operating policies. The finance committee includes men of large affairs identified with banking and with big business, apart from General Motors, while the executive committee is composed of men giving all of their time to the affairs of General Motors. In a limited sense, the executive committee is subject to the finance committee in that operations are dependent upon financial policies. At the same time, financial policies must be maintained so that operations will not be deprived of any legitimate development . . .[27]

The structure is virtually the same today, except that the Executive Committee is now called the Operations Policy Committee. Thus GM is organized as a center for controlling the operations of a series of manufacturing companies; and the principal organ of control is the Financial Policy Committee.

Who are the men of "large affairs" that run the decisive Financial Policy Committee? The controlling stock of General Motors, 23% of it, is owned by the du Pont Company, which has (as of the beginning of 1956) five representatives on the GM Board of Directors, three of them on its Financial Policy Committee. The du Ponts themselves are a section of the financial oligarchy, controlling important banks in addition to their industrial empire. But the financial resources controlled by the du Ponts are far from sufficient to insure the pre-eminence of GM. The billions which have flowed into GM in recent years reflect the interest of a group of financiers with still greater resources.

This is the famous House of Morgan, banker for both the du Pont Corp. itself and for GM. The chairman of the board and the president of J. P. Morgan & Co. are directors of GM, while the chairman of GM is a director of J. P. Morgan & Co. as well as of du Pont. These two Morgan men are both on the Financial Policy Committee, together with the three du Pont men and the Morgan-du Pont chairman of GM. Presumably, the du Pont voice is more powerful than that of the

Morgans in GM affairs, if only because in the event of conflict the du Ponts, with the controlling block of shares, could switch GM financing to the equally wealthy institutions centering around the Rockefeller interests. But the balance between the du Pont and Morgan financial interests in GM is not the point at issue. Clearly, their representatives, and not Charles E. Wilson nor his successor as chief executive, Harlowe H. Curtice, dominate the affairs of GM.

For all its power, General Motors Corp. cannot be regarded as an *independent* center of finance capital, but as a major part of the still larger Morgan and du Pont empires.

Lastly, consider the role of the financial oligarchy in one of the recent big mergers. The Studebaker-Packard merger was worked out by three Wall Street houses, Lehman Bros. (Studebaker's "traditional banker"), Glore Forgan & Co. (also on the Studebaker Board), and Kuhn Loeb & Co. Here is how the bankers worked: "If present plans develop, a merger program . . . will be submitted to Studebaker-Packard management within 20 days. . . . Several suggested methods of bringing Studebaker-Packard under one roof have been scrapped without ever reaching the attention of the principals . . . only one house will submit the final suggestion for bringing the companies together."[28]

Thus the fate of these two companies was worked out *wholly* by the banking houses, with the industrial managers not even being informed as to what was going on, and the final result was brought to them as a *fait accompli* by the bankers' spokesmen.

The industrial managers' role is discussed further in Chapter III. The final argument—government regulation and hostility, is discussed in Part Three.

WALL STREET

> The center of the money market is in downtown New York City, clustered irregularly around Wall Street. . . . This area bounds the location of the head offices of the ten or fifteen banks which . . . provide the major part of the facilities needed to effect the transfers of money, advices in confirmation of agreements, and the securities themselves, which flow largely on the basis of word-of-mouth agreements over the telephone between men who are known to each other and whose integrity cannot be questioned.[29]

So writes a Federal Reserve Bank official, Robert V. Roosa, in the most authoritative description of the present-day money market.

The economic life of the country is largely controlled from this

area no larger than a baseball field. Wall Street is the apex of monopoly power, and a symbol of the extreme concentration of that power under modern conditions.

Supplementing the arguments of the supposed "disappearance" of the power of the financiers is the argument that Wall Street no longer predominates in finance; that the remaining financial power is diffused throughout the country.

Again, a most valuable argument for big business. Convince the people that the traditional target of their anti-monopoly campaigns has been dissipated, its power diffused, and anti-monopoly actions will become correspondingly more diffused and confused.

Sweezy, who is not trying to help big business, claims that New York no longer dominates financially, but is merely first among equals. As one argument he states that financial centers outside of New York formerly "looked up to and sought guidance from and actually followed" New York, but no longer do so to a decisive extent.[30]

This substitutes a subjective criterion—whether the out-of-town centers "seek guidance" from New York—for objective relationships. The desire for an independent role, for getting away from the "guidance" of Wall Street, was always there. During the 1920's the Chicago bankers set up their "own" public utility empire, the ill-fated Insull combine. Giannini, rising to the top in West Coast finance, struck out to establish a nation-wide and ultimately world-wide banking chain. Both of these attempts were beaten back by objective factors, principally the financial domination of Wall Street, which came into full play during the economic crisis of the 1930's. Wall Street emerged more powerful, more dominant than ever.

Again, during the postwar boom, the struggle of out-of-town groups for a "place in the sun" has become significant. The California financiers once more are spreading out within the country and overseas. The Chicago interests have gained control of important corporations formerly run by Wall Street. The Cleveland capitalists and some of the Texas oil millionaires have moved into the fray. Their most dramatic accomplishment was the successful attempt, headed by Robert R. Young, to wrest control of the New York Central from the Morgan-Vanderbilt interests. Correspondingly, these groups seek a greater voice in political affairs at the expense of the New York Behemoths.

But the existence of different financial centers, and struggles among them, does not assure a decisive change in the balance of power. Alongside the much publicized specific gains of out-of-town groups, New

York circles have quietly extended their positions in the original areas of operation of their rivals. Even without a detailed analysis of these struggles, (to be found in Part B of this volume), it is possible to examine the overall evidence to determine whether Wall Street has actually been undermined.

The facts show that New York remains far ahead in all financial statistics. Its lead has diminished in some, but increased in others of greater significance. Its premier position is most marked in the new and rising forms of financial power. Altogether, the financial domination of The Street is unshaken, while with the continuation of centralization of economic power as a whole, its overall weight in the life of the country is enhanced.

The most summary measure of financial activity is the volume of bank clearings. These totalled $531 million in New York City in 1955. This was nine times the clearings of the second most active city, Philadelphia, and exceeded the combined clearings of the next twenty cities.[31] One might say, considering all *secondary* centers, that Philadelphia is "first among equals." But this is not the case with New York. Handling each year more dollars than the total national income of the United States, it is in a class by itself.

The standard statistical evidence cited to "prove" the demise of Wall Street domination is the decline in New York's city's share of commercial bank deposits from over 30% in 1940 to 18% in 1954.[32] However, this comparison uses an unrepresentative starting point and does not include all banks. Deposits of all banks in New York State during the early 1950's were 25% of the national total, as against 28% during most of the period 1914-1929.[33] This is a drop, but not of major proportions.*

Even this smaller decline does not signify a diffusion of financial power. It reflects the growth of "retail" or consumer banking (see Chapter IV), which is spread out geographically more or less according to population. "Wholesale" or big business banking is the decisive instrument of financial power. It is the traditional means of banking penetration into industry, of the merging of financial and industrial capital.

In this crucial field, the role of the New York City banks has not diminished at all as compared with immediate prewar years, and has increased markedly as compared with the 1920's. The share of all banks in New York State in the business loans of the country was 32.5% in 1939, rising to 34.1% in 1953.

* For a fuller discussion of this point, see "New York as a Money Center," by Victor Perlo, in *Science and Society*, Fall, 1955.

Over a longer period, referring to member banks in the Federal Reserve System, the share of those in New York City rose from 19% in 1928 to 29% in 1953. Just eight New York City banks account for close to half the national total of loans to giant corporations with assets of over $100 million.

The share of New York banks in financial loans, connected most intimately with stock market manipulations and the control of corporations, increased just as markedly, and by 1953-54 amounted to almost 60% of the national total.[34]

Business Week, in commenting on a "squeeze" on deposits in New York banks, warned that these might have to curtail loans: "And if that happens, every corporate treasurer will feel the effects within weeks—because New York is the money center of the country."[35]

CENTRALIZATION OF WORLD-WIDE PROFITS

A favorite explanation of the supposed decline in Wall Street's importance has been the movement of population to the West, and the "shift by industry to new centers."[36]

The physical fact of this dispersal is irrelevant. Gulf Oil and Standard of New Jersey have shifted much of their industrial operations out of the United States, and get most of their crude oil abroad. But this merely signifies a great *increase* in the power of the United States oil companies. Within the United States there has been a significant movement of industry away from the higher-wage, older northeastern centers. But William Zeckendorf, large-scale New York real estate developer, pointed out that industries leaving New York have been replaced with executive units "ten times more valuable than industrial space." Since 1947, he said, 20 million square feet of office space has been newly constructed or planned in New York City, more than the entire office space in the city of Chicago.[37] The office space is "ten times more valuable" because it is used as a center of control to draw the profits from developing industry all over the country and abroad.

Commercial banking throughout the country is dominated from the main centers by the correspondent relationship with out-of-town banks and industries. The smaller correspondent banks maintain funds on deposit in a metropolitan bank, to be used for purchase of securities, loan participations, etc. The headquarters bank supervises, to a considerable extent, the lending activities of the smaller bank, channeling selected securities into its portfolio and suggesting loan participations. It also often holds stock in correspondent banks.

The First National City Bank, with over a billion in inter-bank deposits, writes. "Of the hundred largest non-financial corporations in the country, 95 have accounts with our bank. Our correspondent banking relationships are similarly wide. All of the hundred largest banks in the country outside New York City maintain accounts with us. We work jointly with our correspondent banks in cases where business in their areas is of a size and importance to warrant including a New York bank as depositary and lender."[38]

Large midwestern banks have important correspondent relationships also. But, considering those connections carrying influence as distinct from purely nominal deposits, the banks in other cities generally exert only regional influence while the New York banks alone exert truly national influence.

Foreign banking is a field of crucial importance; it affects international relations; it involves close connections with the most profitable foreign dealings of U.S. corporations. Because of the increased world role of the dollar, this foreign business has become more important and in some respects has multiplied in volume. For example, deposits of foreigners in United States banks increased eight times between 1931 and 1954.

A recent Federal Reserve study showed that 15 banks wholly dominate foreign transactions. Of these, ten New York City banks held 76% of the total claims on foreigners, and 84% of the total deposits of foreigners.[39]

There are just nine U.S. banks with foreign branches or subsidiaries. Two Wall Street banks account for the majority of branches and over half the deposits in foreign offices. These are the First National City Bank, traditional bank of the raw materials merchants, and Chase Manhattan, bank of the international oil companies. Four other New York banks with foreign offices bring the city's share of deposits abroad up to two-thirds.[40]

If one passes from the field of ordinary commercial banking to other fields of finance, the predominance of Wall Street is shown to be even greater.

In investment banking, during the period 1950-54, 16 large New York City firms headed the underwriting of 66.5% of all securities issued.

In stock exchange transactions, 92% of the 1953 national total were on the New York exchanges.

In life insurance, New York and Newark companies held 61.4% of all life insurance company corporate loans at the end of 1952.

Nine-tenths of all such loans are held by life insurance companies operating from 5 northeastern centers. Trust departments of banks in New York City handle almost half of this vital business.

The activities of these various forms of financial institutions are coordinated by the interlocking oligarchy of Wall Street. Their functioning is described in Chapter IV.

Sweezy thinks that "economic and political changes in the last thirty years (especially changes in the structure and functions of the banking system and the expansion of the economic role of the state) have reduced the relative importance of New York to a marked degree."[41]

The development of life insurance companies, trust departments and international financial connections are among the more important changes in financial structure and forms during the past thirty years. But as can be seen, these all serve to enhance the domination of Wall Street, rather than the opposite. As for political changes, the specific weight of Wall Street in the control of the government by the financial oligarchy is discussed in Chapter XVI. Again, the increased economic role of the state means more power for the New York centers.

Wall Street is less brash in flaunting its power than it was thirty years ago. However, that power has not been successfully challenged. Practically all of the leading journals join in the game of denying the reality of "Wall Street." But occasionally, when other issues are at stake, the truth comes out. In 1953 the Mellons were trying to get the Engineering Societies to move their headquarters from an unsuitable New York building to Pittsburgh. A New York group had plans for them to remain in that city. The *New York Times* commented editorially: "The temptations tossed at the engineering societies by the outlanders seem to be in the form of money or other articles of value. But we remind them that New York is the beaten track. It is the gathering point. From here, incomparably, great corporations run their businesses, make their plans, execute the decisions for construction and expansion programs. Here is the financing capital. Can any of the inviting cities make this claim?"[42]

The Engineering Societies stayed in New York.

CHAPTER III

The Ownership and Control of Corporations

Most people know that a few hundred corporations dominate the economic life of the country. But to understand this domination fully it is necessary to go behind the anonymous front of the corporation and to see who runs it.

Who control the great corporations? How do they exercise that control?

THE CONTROLLING LARGE STOCKHOLDERS

Those who do control try to convince the public of the existence of a corporate "democracy" of millions of small shareholders. This idea is stressed repeatedly in speeches of executives, in corporation advertisements, and in corporation-sponsored research works. It is a main feature of the newly-coined phrase, "people's capitalism."

It is, however, complete fiction. The myth was effectively nailed by F. D. Roosevelt, who wrote:

> The mere number of security holders gives little clue to the size of their individual holdings or to their ability to have a voice in the management. In fact, the concentration of stock ownership of corporations in the hands of a tiny minority of the population matches the concentration of corporate assets.
>
> The year 1929 was a banner year for distribution of stock ownership.
>
> But in that year three-tenths of 1 percent of our population received 78 percent of the dividends reported by individuals.[1]

Those who sponsor the "people's capitalism" line know this better than anybody else. But they have revived and heightened the propaganda, in a politically-motivated attempt to mislead a supposedly gullible public.

Through stock ownership, writes Professor Marcus Nadler for the

Hanover Bank, "the people own the means of production."[2] But the 8.6 million stockholders estimated for 1955 is lower than the number then estimated in 1930. Half a million wage-earner families own stock, but the total stock owned by all of them equals about two-tenths of one percent of the total value of stock outstanding. A single family, the du Pont clan, owns ten times as much stock as all the wage-earners of the country put together. The dividends received by the average worker-stockholder amount annually to about two days wages, or a tiny percentage of the profits derived by the large stockholder from his labor. And 97% of all wage-earners do not even have this token "share in the means of production."

Actually the corporation is run by a tiny clique of large shareholders and their banker-associates. Almost every day the financial pages report an individual or group purchasing control of a corporation from another individual or group. The thousands of small shareholders in the corporation are not consulted, are usually unaware of what is going on, and may be totally unaffected by the shift in control.

In a political democracy, there is usually one vote per voter. But in the affairs of the corporation, there is one vote per share of stock. The holder of 10,000 shares has as much influence as 1,000 holders of 10 shares each, even if one assumes the unlikely event that the 1,000 would get together and unite their votes.

Shortly before World War II a government agency, the Securities and Exchange Commission, studied the shareholdings in the 200 largest non-financial corporations in the United States. The results were published in a monograph of the Temporary National Economic Committee (TNEC).

The TNEC monograph showed a total of 7 million common stock shareholdings in these 200 corporations, or an average of 35,000 shareholdings per corporation. But fewer than 3% of the stockholdings accounted for more than half the stock. That is, fewer than 1,000 large and substantial shareholders in the average corporation could win any vote against the remaining 34,000. But even this tells the least part of the story.

The 20 largest stockholders in each corporation, on the average,*

*The 20 large stockowners in the statistics mean holders "of record" rather than "legal" or "beneficial" holders. Usually, a family with a large interest has its holdings distributed among several holdings "of record." On the other hand, many of the large holdings "of record" are by financial institutions, in some cases representing many individuals, in other cases mainly one or two. For these and other reasons the number of individuals or families controlling an equal percentage of the stock (through direct ownership or through controlled institutions), may be more or fewer than 20, depending on particular circumstances.

owned 32% of the common stock.[3] These 20 large stockholders, in practice, easily control the affairs of the corporation. To see this more clearly, let us summarize the situation in the average corporation as revealed by the TNEC monograph:

20 large holders have 32% of the votes
980 substantial holders have 18% of the votes
34,000 small holders have 50% of the votes

The 34,000 small holders rarely take an active interest in the corporation's affairs. Their stake in it is too small to justify any significant expenditure of time or money to look after their investment, nor do they have the resources to do so if they wished. When there is a meeting of the corporation's stockholders (usually held once a year), they cannot attend. They send "proxies" to a committee representing very large stockholders, authorizing them to dispose of their vote as the proxy committee sees fit. A few hundred of the substantial holders, at most, will attend the meeting. But with their 18%, they cannot successfully challenge the 20 large holders, who not only control their own 32%, but also a good part of the 50% of the total vote belonging to the small holders, which these have sent the committee of large holders as "proxies."

When fights take place for control of a corporation, and they do fairly often, *these fights are among the 20 large holders.* Different groups among these large holders engage in a struggle for control. In many such cases, each group requests the small and substantial stockholders to yield voting "proxies" to it, rather than to the rival group. Sometimes millions of dollars are spent in these proxy fights, in the last analysis at the expense of the stockholders—or, when the company is able to pass on the cost, at the expense of the users of its products.

Actually, not all the 20 largest shareholders, but a still smaller clique among the 20, are able quite easily to control the affairs of most corporations. The *New York Times* wrote on the Ford Foundation sale of stock that reduced the Ford family's share of voting stock to 40%: "Wall Street experts noted that effective control of the company was virtually certain to remain with the family, even after the transfer of 60 per cent of the voting rights to outsiders. *In practice, the holders of 5 to 10 per cent of the stock usually are able to exert a controlling voice in the affairs of a corporation that has large numbers of stockholders.*"[4] (emphasis added.)

In reality, therefore, not 20 shareholders with one-third of the stock,

but usually one to five shareholders with 5-10% of the stock, exercise effective control. Typically, an alliance of a handful of giant stockholders, more or less akin to a partnership, has control. The members of this control group divide the profits of control in an agreed fashion, decide corporate policies among themselves, and select managers and technicians to handle corporate operations. Even within this grouping, the power is not equally distributed, and there is often a single dominant individual or group.

The main mechanism for the exercise of control is the corporation's board of directors. The board of directors usually numbers 9 to 15 individuals. Formally, they are elected by the stockholders. In practice they are selected by the small group which exercises control. When a magnate purchases a large block of shares in a corporation with which he was not previously connected, he demands a place on the board of directors, and will usually be granted such a place unless he is regarded as hostile to the existing center of control. When the block is sufficiently large to cause a switch in the center of control, the newcomers demand majority representation on the board of directors. They may achieve this peacefully, by buying out the holdings of the previous control group at a favorable price, or by granting various other concessions, such as continuation of high-salaried jobs or profitable contracts. Or the issue may be settled only after a struggle involving a "proxy fight" for the votes of the small and medium-sized shareholders, court suits, competitive buying up of available shares on the stock exchange, and other techniques.

Representation on the board of directors may be held personally by the large shareholder; it may be held by one of his employees as a representative of his interests; or it may be held by the bank through which he operates and in which he usually also has a financial interest.

An example of the first type of representation is provided by the Crown Zellerbach Corp., now the second largest paper manufacturer. The Zellerbach family is the largest shareholder and has three members on the board of directors. In this case, but not always, members of the owning family occupy the leading executive positions also.[5]

The Rockefellers provide examples of the second kind of representation, through personal employees or nominees. Harper Woodward and Randolph B. Marston, among others, serve as Rockefeller representatives on the boards of various companies, although they do not have a substantial financial interest in their own right.

The third type of representation, through a bank, is seen in the case of Union Carbide & Carbon, second largest chemical corporation. The

largest block of shares in this corporation, as of 1938, was held through the Hanover Bank. Then, and now, the chairman of the Bank is a director of Union Carbide, and the chief executive officer of the chemical company holds a place on the Hanover Bank board.

This type of representation leads to discussion of a most vital element in the structure of corporate control.

BANKERS' ROLE IN CORPORATE CONTROL

So far we have examined the basis of control of the individual corporation. Although the forms have changed, the principle is the same today as a century ago. One new feature, typical of the present century, is the size of the individual corporation, reaching the point where one or a few companies dominate a given industry. Still more significant is the exercise of simultaneous control over the affairs of a whole series of these giants by a single power center.

Super-corporate empires running into the tens of billions of dollars have arisen in this way, their spheres covering a wide range of finance, industry and trade within the country and overseas. The giant banks are the centers of these empires. Their position arises along two related lines. One line, and the original source of banking power, is the virtually limitless need for financing of the great corporations, both in their organization and in their subsequent expansion.

The banks which can supply this financing obtain a great, and sometime paramount, influence in the affairs of the corporation. They often become the very core of the control group; they obtain representation on the board of directors; they exercise a veto power on all major policy questions; they can direct orders for materials to allied firms and transport to allied railroads. This influence may exceed by a wide margin that indicated by the actual stockholdings of the banks.

Most outside funds for expansion supplied through the banking houses and insurance companies are raised through bonds, which in theory have no votes but in fact involve an important degree of power, expressed formally in various financial and operating restrictions on the borrower.

In a minority of cases the lending bankers are granted decisive legal control over operations. Thus, a small group of Texas families own almost all the stock of Anderson, Clayton & Co., the largest cotton merchandising company. But its capital for postwar expansion was supplied through the Morgan banking interests. As one condition, 90% of the controlling shares in the subsidiaries which compress and warehouse the cotton are held in a voting trust agreement by a committee

controlled by the Guaranty Trust and the Morgan law firm, Davis, Polk, Wardwell, Sunderland & Kiendl.[6]

More typically, however, the power position of the lending bank is based less on formal agreements than on its role as the supplier of funds, connecting link with other industrial firms, negotiator of mergers, source of all kinds of economic information, and contact point for all-important political influence.

The second line of banking power is the ownership of control blocks of stock by and through the big banks. This is often overlooked, and the illusion created thereby that banking power in industry is quite divorced from stock ownership.

Goldsmith estimated that the share of financial institutions in corporation stock increased from 7.9% in 1900 to 14.2% in 1929 and 23.6% in 1949.[7] Our estimate for 1954, which may not be wholly comparable with Goldsmith's, is one-third (Chapter IV). The government study of large stockholdings in the 200 giants of industry showed that in 1938 financial institutions held about one-half of these controlling blocks.[8] By 1954 this proportion reached about two-thirds. Indicative of the accelerated concentration of corporation stock in financial hands during the "Eisenhower boom," 77% of the net purchases of stock during 1954 went to these institutional investors.[9]

Bank stockholdings arose historically and continue to grow through a variety of ways: banker-promoters receive large blocks of shares as part of their price for organizing mergers and new corporations; they receive "proxies" for the voting of blocks of shares they place with certain customers, especially foreign stockholders; they handle the estates of wealthy clients, voting their stock in the big corporations.

For example, a number of families of the steel barons whose properties were put together into United States Steel by the House of Morgan became clients and associates of the Morgan banking interests, not only in steel, but in other industries as well.

The large banking houses control additional blocks of shares accumulated by affiliated financial institutions, such as insurance companies, investment trusts, and brokerage houses.

Stockholding by financial institutions is impersonal in form, but not in substance. The essence of the power of the leading bankers is their ownership of the most vital control blocks of all, the shares of the great banks. These stocks are very closely held. They are not traded on the stock exchanges. The "floating supply," that anybody with the funds may buy, is small. Maximum secrecy surrounds the identity of the owners.

As the greatest monopolies expand through wars and mergers,

control is increasingly exercised through a combination of these two lines of power—use of the financial resources of the banks, and of the largest blocks of stocks, also carried by the financial institutions.

The report of the Pujo Committee in 1913 recognized the importance of both of these as means for establishment of banker control over industry.[10] But subsequent literature has largely lost sight of the second, which resulted in a seeming narrowing of the basis of finance capital, and opened the door to the apologists who "abolished" finance capital.

Both lines of power are still vital, and banker stockholdings are in fact larger than ever.

THE OLIGARCHY

Anna Rochester cites the Morgan interests as the best known example of the power derived from the complex financial resources of the banks, and refers to it as: "the most advanced stage of capitalist development. . . . Industrial companies drawn in originally through Morgan investment banking are held in line through Morgan dominance in the banking world, but at the same time the Morgan banking power is now supported by the great Morgan industrial corporations."[11]

This most advanced form of control does not reflect an antagonism between banking and industry, nor the taking over of industry by the banks in any crude sense. Its general basis is characterized by the "community of interest" principle advocated by the leading banker in the early decades of the monopolies, J. Pierpont Morgan. Under this principle a group of the wealthiest moguls in industry and in finance combine their holdings to establish control over a whole series of corporations. The banks are key to this structure, but the erstwhile industrial magnates become part of the banking group.

The upshot, then, is not the conquest of one by the other, but the *merging* of industrial and financial magnates into an all-powerful *financial oligarchy.* This oligarchy is not, by any means, wholly unified. It is divided into groups, with different spheres of control, although various of these join their interests in particular corporations. The development of the financial oligarchy with its ramified controls increases many times the effective concentration of economic power. *For while 200 large corporations dominate the economic life of the country, eight centers of high finance control most of these 200 corporations.*

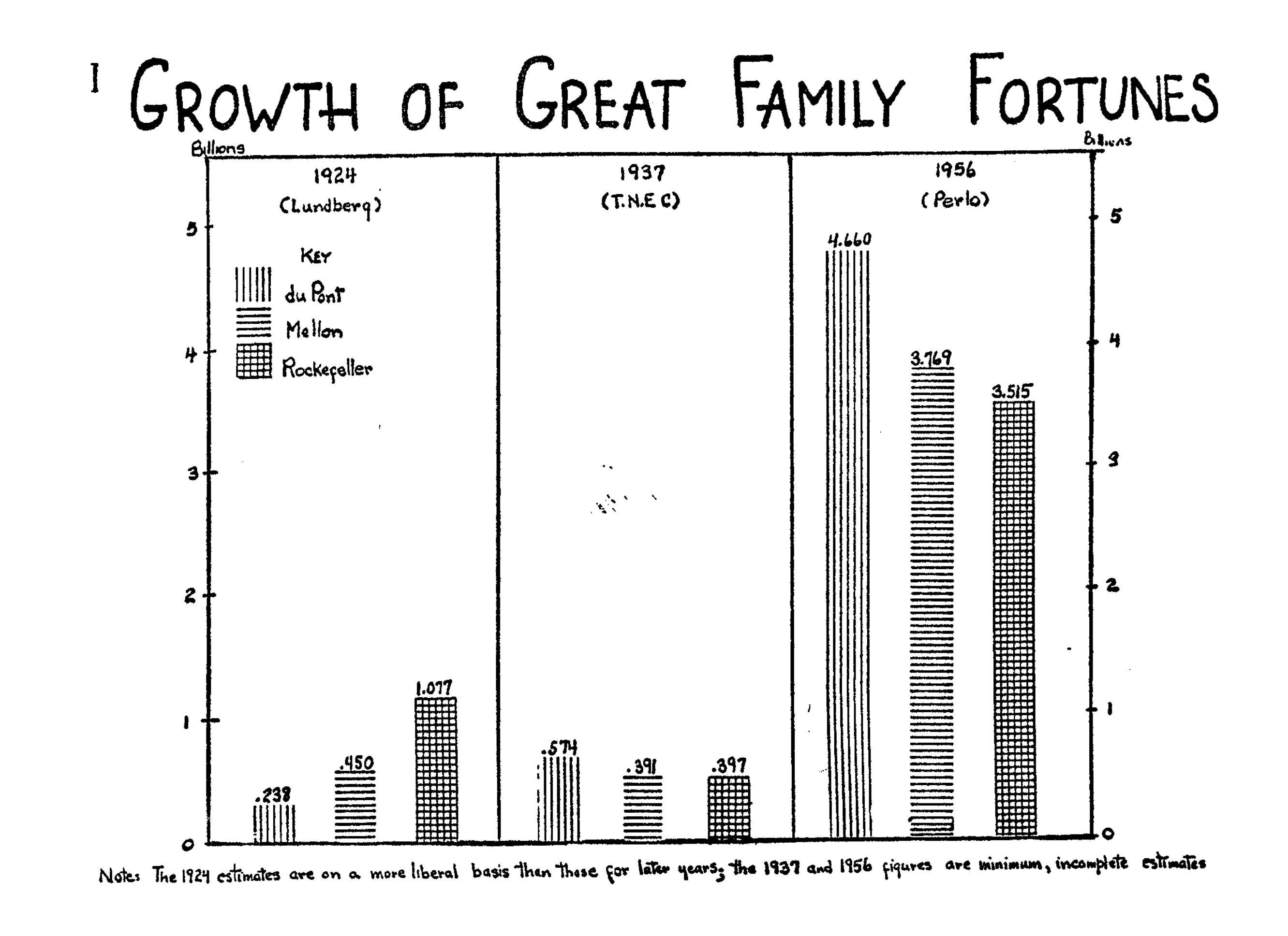
The individuals exercising control are mainly the multi-millionaires descended from the tycoons involved in the original formation of the trusts over fifty years ago. Some new interests have risen to the ranks of the mighty; some old families have become bankrupt or have died out. Outstanding is the entrenched aristocracy of American wealth, the so-called "60 families" who pile up added billions of dollars each year. The classic book about the rich American families is Gustavus Myers' *History of the Great American Fortunes.* Most of the fortunes described by Myers, some stretching back over 150 years, are still prominently represented in the circles of the financial oligarchy today —Astor, Goelet, Field, Vanderbilt, du Pont, Gould, Crocker, Morgan, Rockefeller, Havemeyer, Duke, Guggenheim, Mellon, and Ford are examples.

The public is told by press and television, by learned professors and skilled advertisers, that these great fortunes have been shrunken or dissipated through charities, high taxes, and egalitarian legislation. This is another leading theme in the People's Capitalism lullaby. C. Wright Mills, in *The Power Elite,* shatters it, and concludes: "The fabulously rich, as well as the mere millionaires, are still very much among us . . . the corporate rich of America, whose wealth and power is today comparable with those of any stratum, anywhere or anytime in world history."[12]

Mills, relying on income tax data, shows that these fortunes are unimpaired as compared with the 1920's. More precise measures show that actually they have been multiplied many times. (See Chart I.)

The TNEC computed the 1937 fortunes of such families as the Fords, du Ponts, Mellons, and Rockefellers as of 1937. It measured the market value of their reported shareholdings in the 200 largest non-financial corporations. It excluded holdings in banks and in smaller industrial corporations, hidden holdings in the 200 giants, holdings in unincorporated ventures, and personal properties. Despite these limitations, the TNEC report embraced the major components of family wealth.

These key stockholdings have not been dispersed. This is known specifically from certain corporate reports, as of the du Pont holdings in E. I. du Pont de Nemours; and from semi-official biographical accounts, as in the case of the Rockefeller Standard Oil holdings. Indeed, the fact of multiplied stock prices since 1937 would make any major sale of stock by one of these families too costly taxwise, even with the mere 25% capital gains tax, to be considered except in an emergency.


I
GROWTH OF GREAT FAMILY FORTUNES
Billions
1924
(Lundberg)
1937
(T.N.E.C)
1956
(Perlo)
KEY
du Pont
Mellon
Rockefeller
0
1
2
3
4
5
.238
.450
1.077
.574
.391
.397
4.660
3.769
3.515
Note: The 1924 estimates are on a more liberal basis than those for later years; the 1937 and 1956 figures are minimum, incomplete estimates

Combining TNEC data with other sources, it is possible to estimate the 1956 du Pont, Mellon, and Rockefeller fortunes, on a basis roughly comparable with that of the TNEC study:

TABLE 1. THE DU PONT, MELLON AND ROCKEFELLER FORTUNES, 1937 AND 1956

	(Minimum Estimate of Value of Corporate Property, *millions*)	
Family	*Dec. 31, 1937*	*April 30, 1956*
Du Pont	$574	$4,660
Mellon	391	3,769
Rockefeller	397	3,515

SOURCE: 1937, TNEC Monograph No. 29, Table 6, p. 116; 1956 (see Appendix 1).

Each of these family fortunes has multiplied between 8 and 10 times during the past two decades. This multiplication factor may be exaggerated for statistical reasons,* but the actual amounts shown for 1956, though not precise, are incomplete and certainly minimum estimates of these families' fortunes.

Thus today, for the first time, it is possible to speak of a number of *multi-billionaire* families in America.

These statistics of personal wealth, impressive as they are, do not adequately convey either the full power of these families, nor their comparative standings. The power of each of these major families arises from the vast corporate empires controlled through their shareholdings. In the case of the Rockefellers this embraces assets of over $60 billion, seventeen times the family fortune, and several times larger than the empires controlled by the du Ponts or Mellons (see Chapter VII).

Moreover, there are propertied men, no one of them in the family wealth class of the du Ponts, Mellons, or Rockefellers, who, by their historically developed functioning as a unified group, are comparable in total wealth and power. In this way, the Morgans and the various families associated with them compare with the Rockefellers; the Chicago or Cleveland groups with the du Ponts or Mellons.

To present the real picture, therefore, our concern here will not be mainly with tracing the particular holdings and degree of activity in financial affairs of individuals or families, no matter how wealthy. We will concentrate instead on the financial institutions through which

* The vagaries of the stock market—at a low point in December 1937 and at a high point in April 1956; and the inclusion of some additional corporate holdings in 1956.

their holdings and activities are centralized. At the same time, it must be remembered that the great banks, like other corporations, are not really anonymous institutions, but are controlled by a narrow clique of the very wealthy, the "Power Elite"* who exert enormous power and derive great profits from the whole range of American economy by virtue of that control.

With the development of monopoly capitalism, this most advanced and complex form of industrial control becomes more general. At the same time the distinction between the banker and the industrialist becomes more vague—as the banker and the industrialist merge into the unified banker-industrialist. The identity of the individual with a particular company or line of industry also becomes more vague, as he joins with a group of tycoons, and spreads his interests over a wider and wider range.

To illustrate this molding of economic power into a common basic form, consider the evolution of the Rockefeller and Morgan power. The Rockefellers began as oil magnates, with no interest in financial institutions, doing their own banking through the Standard Oil Co. The Standard Oil companies have grown hundreds of times and still provide the largest part of the Rockefeller *profits*. But the *power* of the Rockefeller empire is no longer centered in the Standard Oil Corp., but rather in the Chase Manhattan Bank, and its associated insurance companies and investment banking agencies. Moreover, the industrial interests of the Rockefellers, largely through their banking connections, now extend to aircraft, utilities, and a wide range of other industries besides oil. The Morgans began as bankers, and until as recently as 1940 remained a closed partnership. But today J. P. Morgan & Co., the key bank of the Morgan group, is a "public" corporation like the other banks, with "outside" directors from the industrial corporations in which the Morgans have an interest as well as "inside" directors consisting of full-time bankers.

Until recently one giant of industry retained a semblance of isolation from bankers and the network of interlocking directorates and mixed stock ownership. However, in 1956 Ford Motors authorized sale of stock to the "public" through a Wall Street investment banking syndicate, and hereafter will be increasingly associated with the financial oligarchy. In 1954 Campbell Soup, the largest "private" food company, made a similar stock distribution. Large private industrial companies are now limited mainly to the textile industry.

* The term is that of C. Wright Mills, who brilliantly analyzes the relationship between the individuals of the Elite and their institutions of Power.

THE "MANAGERIAL REVOLUTION"

As the control of industry has grown more complex in character, and increasingly centered in a network of financial institutions, it has become easier to conceal. When the giant corporations were first organized, the controlling banking interests openly laid out their empires and flaunted their power. But as opposition to this power increased, as its harmful effects on the people were exposed, the tendency grew to obscure and disguise its very existence.

The dominant financial interests hide behind the legal fiction of the anonymous "corporate person"* as a law unto itself. As the great majority of industrial property-owners, the small shareholders, lost all influence over corporate activity, the corporation appeared to them to become something apart from private property rights.

Encouraging this illusion, Berle writes: "The capital is there; and so is capitalism. The waning factor is the capitalist. He has somehow vanished in great measure from the picture, and with him has vanished much of the controlling force of his market-place judgment."[13]

The concept arose of the separation of ownership from control in the large corporation. Its essential falsity was expressed very clearly by Sweezy:

> In recent years we have read much about separation of ownership from control in the large corporation. This is a correct description of actual trends if it is taken to mean that concentration of control over capital is not limited by the concentration of ownership. If, however, it is interpreted as implying that control passes out of the hands of the owners altogether and becomes the prerogative of some other group in society, it is completely erroneous. What actually happens is that the great majority of owners is stripped of control in favor of a small minority of owners. The large corporation means, thus, neither the democratization nor the abrogation of the control functions of property, but rather their concentration in a small group of large property owners.[14]

Sweezy refers to "some other group in society" to which control supposedly passes. What is this other group? It is the hired managers and executives of large corporations. As the financial overlords became involved in larger networks, they increasingly separated themselves from active management of particular enterprises. They concentrated their personal economic activity within the financial houses or family holding companies from which the manifold investments were handled. The daily supervision of affairs in the industrial corporations,

* In some countries a corporation is known as a *"Société Anonyme."*

and even in many banking corporations, was more and more turned over to hired executives.

Formal responsibility was shifted from those actually in control to the hired managers and "front men." This tendency became particularly prominent with the outbreak of the great economic crisis of the 1930's, the utter failure of the tycoons of Wall Street to ward off its calamitous effects on the people, and the development of popular struggle against big business. When Republic Steel gunmen shot down striking steel workers in 1937, the responsibility was assigned to the executive, Tom Girdler, and not to the Cleveland financiers who completely controlled the corporation, and who had hired Girdler and made the major policy decisions.

Various professors and writers, from outright apologists for big business to well-meaning liberals, accepted at face value the facade of hired managers concealing the true character of control. They developed the theory that the managers now controlled the large corporations, and that these managers were a new and distinct class in society.

The concept of "management control" first appeared prominently in a book by Berle and Means, published in 1933, *The Modern Corporation and Private Property*. These authors failed to trace the connections of large corporations with financial institutions. Instead, where there was not an obvious basis for control in well-publicized centers of stock ownership, they usually classified a company as under "management control." They found that as of 1930, 44% of the largest companies, with 58% of the assets, were "management controlled."[15]

The later studies of the 1930's, based on more adequate information, largely overcame the weaknesses of the work by Berle and Means, and established outside centers of control for most of the corporations that these authors had classified as "management controlled." The TNEC study found that concentrated stockholdings constituted an adequate basis for control of most giant corporations: "About 60, or less than one-third of the 200 corporations, were without a visible center of ownership control. This does not mean, however, that an actual center of control was lacking, but only indicates that a study of the 20 largest record holdings failed to disclose such a center."[16]

The National Resources Committee study, depending mainly on financial connections and interlocking directorates, filled in many of the gaps. In later chapters of the present volume, by combining information on stockholdings with analysis of financial connections

and interlocking directorates, definite centers of control are established for almost all large corporations analyzed.*

At any rate, even the prewar studies disposed factually of the "management control" theory. But shortly after they appeared, the theory was formalized and built into a system by the writer James Burnham in his book *The Managerial Revolution*. He claimed that capitalism was being supplanted by a new "managerial" society, whereby a bureaucracy of industrial managers would run the country. According to Burnham, the "managerial revolution" had been substituted for the socialist revolution, and Marxism was thoroughly discredited. Moreover, he argued that the "managerial revolution" was a world-wide phenomenon common to various social formations, of which the fascist type in Germany was most efficient. In the United States also, he argued, "managerial society" must ultimately develop along the political lines of Hitler Germany.

Thus Burnham supplied a rationale for the continuation in disguised form of capitalism. He endeavored to win acquiescence in fascist-type rule by big business as an "inevitable" outgrowth of the supposed trend towards control by the "managers."

Burnham was in no sense an economist, nor did he present any supporting data. But his theory was so valuable for big business that it could not be permitted to die a natural death. Instead it was widely popularized, made into part of the economic folklore of our times, presented as dogma to college students and the general public.

The "managers" are depicted as men risen from the ranks—"workers" who made good. Their supposed rule is projected as proof of the democratic or at least benevolent character of American capitalism.

Professor Samuelson of M.I.T. writes in his best-seller textbook:

> If not the stockholders, who do make corporate decisions? Primarily, the increasingly important class of *professional managers*. . . .
>
> This suggests that the future problem may not be one of choosing between large monopolistic corporations and small-scale competitors, but rather that of devising ways to improve the social and economic performance of large corporate aggregates.[17]

* Berle and Means classified 36 large industrial corporations as "management controlled" (besides several not included in later lists of large corporations). The TNEC study found definite centers of control for 15 of these. The National Resources Committee study established control centers for 11 of the 21 remaining. The present volume, with its more complex frame of reference, finds definite control centers for 7 of the 10 corporations unclassified before World War II. That leaves just 3 of the Berle and Means list of 36 as possible candidates for "management control."

No longer is monopoly to be feared, for it is not run by capitalists, but by managers, who may be converted into public servants! The most extravagant version is that of Berle, who claims that management control has imbued big business with a "corporate soul," which he hopes will harness capitalism to the advance of social welfare. Berle's view is roundly denounced by the anti-monopoly economists, Adams and Grey, who write of his doctrine of the "corporate soul": "This is the ultimate rationalization of monopoly, the prelude to final legitimization, which is the goal of all aspirants for monopoly power."[18]

While most of the business and academic world accept the validity of the "managerial revolution" theory, they are not wholly agreed as to its desirability. As against its advocate Samuelson, professors Purdy, Lindahl and Carter charge that the managers set themselves up as a "perpetual totalitarian business elite, . . . rather than a group of stewards working for the interests of stockholders, employees, and the general public. . . . Only a Rockefeller can wage a successful struggle against an arbitrary management fortified with a strong corporate treasury."[19]

Of course, some of these arguments are sheer nonsense. As if any big capitalist is after anybody's welfare except his own, or acts as "steward" for somebody else if he does not see a profit in it! Obviously, this discussion must be divorced from that twisted morality, which in the case of these authors glorifies the Rockefellers and other vested families, and attacks the "greedy" Girdlers, Wilsons, and other hired executives—and in the case of other authors glorifies the hired strikebreakers, speed-up artists, and government contract-getters, as against the "coupon-clippers" behind the scenes.

Despite the propagandist purpose of the "managerial revolution" theory, it is necessary to examine some of the evidence cited by its advocates.

Prominent is the argument that salaried officials, or "inside" directors, constitute a majority on the boards of most large corporations, and "outside" directors, primarily representing financial interests, are a minority. This argument simply disregards or distorts the facts.

In seven of the ten largest non-financial corporations, as of early 1955, so-called "outside" directors were a majority, usually an overwhelming majority.*

* Among academic studies of this subject, the best documented, by Professor Mabel Newcomer, shows that of over 5,000 directors of large corporations in 1949, only 37.3% were officers, or "inside" directors. This was an increase from 25.7% in 1900, but of course the development of a responsible corporate bureaucracy was still in its early stages at the turn of the century.[20] Professor Stanley Vance claimed to show a majority of "inside" directors, but by means of a confused classification which lumped together members of owning families with hired executives, and other dubious statistical methods.

TABLE 2. "OUTSIDE" AND "INSIDE" DIRECTORS OF TEN LARGEST NON-FINANCIAL CORPORATIONS, 1955

Corporation	*Number of Directors* "Outside"	"Inside"
American Telephone & Telegraph Co.	18	2
Standard Oil Co. (New Jersey)	0	16
General Motors Corp.	20	13
United States Steel Corp.	13	5
Pennsylvania Railroad	14	4
New York Central Railroad	14	1
Socony-Mobil Oil Co.	2	10
Standard Oil Co. (Indiana)	3	13
Southern Pacific Railroad	14	2
Gulf Oil Corp.	6	3

SOURCE: Poor's *Register of Directors and Executives*, 1955. "Outside" directors are those whose principal business attachment is not with the listed company. Usually they represent large stockholders, affiliated financial institutions, or corporations in related industries. "Inside" directors are paid executives of the listed company, usually without substantial stock ownership.

The three exceptions, with a majority of "inside" directors, are all Standard Oil companies. As shown in Chapter IX, far from exhibiting "managerial" control, this merely reflects the tightness of the Rockefeller grip on the oil companies, which permits them to put the affairs of their largest industrial corporation formally in the hands of hired managers without risking loss of actual control.

In smaller companies, there is often a majority of "inside directors." But this is usually because here the large stockholding families more often appear *personally,* rather than through trusted employees, among the salaried managers. And in some companies outside directors are limited for legal reasons, as with the electric power holding systems. The significance of these limitations, so far as actual control by financial interests is concerned, is shown in Chapter VI.

The largest giant of them all, American Telephone & Telegraph, heads the list of the so-called "management-controlled" corporations. But what is the actual situation? Of the 18 directors, only 2 are salaried officials! The outside bankers not only dominate the board, but constitute the majority of the executive committee.

The statement that "only a Rockefeller" can challenge a group of managers is also not in accord with the evidence. Recent years have seen numerous examples of dominant shareholdings or financial groups firing the top executives of large corporations. Lever Brothers, the British-controlled soap manufacturers, fired the well-known Charles Luckman as chief executive. The Merrill Lynch interests controlling Safeway Stores fired Lingan A. Warren, despite the fact that he had

acquired a prominent position in the retail world. Finally, the epitome of the dictatorial manager, Sewell Avery, was dropped by the Chicago financiers who really dominate the "management controlled" Montgomery Ward. When Robert R. Young and his associates defeated the Morgan interests for control of New York Central, they replaced the president, William White, and a number of other top executives. The Wall Street forces "took care of" their loyal servant, White, however, and promptly made him president of another railroad under their control, the Delaware & Hudson.

This is not to say that corporate managers are mere "hired hands." The executives of Standard Oil, somewhat like the permanent Civil Servants of the British Foreign Office, have lifetime tenure in positions of great responsibility, often international in scope. But the tenure is secure, and the responsibility exercised, only so long as it conforms with the general policy lines laid down by the controlling outside interests.

Of course, conflicts arise. Corporation officials and executives "bargain" with the controlling stockholders over the division of the spoils, and sometimes fairly sharp differences arise. Moreover, occasionally hired executives rise to positions of considerable influence, and may participate in control, by virtue of exceptional ability or where an uneasy balance of power exists among owning groups. For example, Charles E. Mitchell became a dominant figure in the National City Bank during the 1920's because of his skill in the aggressive sale of stock, and because of personal difficulties which impeded active exercise of control by the largest stockowning family. In the case of Bethlehem Steel, the managing group, consisting of large stockholders from the time of establishment of the corporation, probably exert effective control, although in close concert with leading Wall Street financial interests. Frequently business managers become prominent in politics, as representatives of dominant financial interests, rather than as controllers of corporate policies.

Regardless of the exact distribution of power in any given case, the most vital point is the identity of class interests as between managers and controlling stockholders. Burnham's attempt to draw a class distinction is in complete disregard of the facts.

Contrary to the Horatio Alger mythology of "People's Capitalism," corporate executives are drawn overwhelmingly from the propertied classes. Nepotism is normal in filling top jobs throughout the network of industry and finance. When a man of lesser property rises to a high place, often as not he gets there by "marrying the boss's daughter."

Even in the absence of such personal ties, the poor man rises to the corporate top only by dint of the most strenuous, unscrupulous efforts to serve his masters at the expense of the company's workers, customers, and rivals.

These conclusions may be gleaned from recent academic studies, such as that of professors Warner and Abegglen. They found that two-thirds of all top business executives were the sons of owners or executives of business firms or of professional men, and concluded: "Whatever our national hopes, the business leaders of America are a select group, drawn for the most part from the upper ranks. Only to a limited extent may it be said that every man's chances are as good as the next man's, for birth in the higher occupational levels improves these life chances considerably."[21]

Mabel Newcomer, in a more elaborate study, found that the chances of a son of a business executive attaining a top corporate post were 139 times the chances of a semiskilled or unskilled workers' son,[22] and that corporate chairmen and presidents were overwhelming from moneyed families of Anglo-Saxon Protestant origin.

The corporate bureaucracy, like the government bureaucracy, has increased in size with the growth of giant corporations. But even more than government bureaucrats, the corporate managers are part of, as well as agents of, a ruling group, the financial oligarchy.

THE FRUITS OF CONTROL

Capitalism has grown far more complex than it was in the days when the capitalist personally supervised the labor of workers and derived his profits directly from the exploitation of that labor. The essence of that relationship remains as the amount of profits derived from exploitation of labor has multiplied. The particular characteristic of monopoly capitalism, in this respect, is the monopolization of profits, going far beyond the centralization of capital in a few strong hands.

The control group in a corporation, which, as has been shown, may supply a small proportion of the total capital invested, appropriates a much larger share of the total profits, often amounting to the lion's share.

Traditional economic theory recognizes that the rate of return on "risk capital" is normally several times as large as the rate of interest, paid for the mere use of money "without risk" on the part of the lender. Now, to be realistic, economists must define an additional

category, the *profits of control.* These profits are realized in a variety of forms. Their existence is often hidden, appearing neither in the books of corporations nor in the tax returns of individuals. In my earlier work, *The Income "Revolution,"* it is estimated that the top one percent of the population had effective income of more than $16 billion in 1948, over and above the $19 billion reported on their tax returns.[23] A major portion of the $16 billion, in addition to a small part of the $19 billion, consisted of the profits of control.

Because of the lack of precise statistics on the subject, Table 3 is presented only as a rough approximation of what the actual situation may be in the United States today.

TABLE 3. RETURN ON DIFFERENT CAPITALS

Kind of Capital	*Possible range of rate of annual return*
Control capital	25%–50%
Risk capital (ordinary share capital)	4%–12%
Personal savings at interest	2%– 3%

Here the whole concept of profits as the "reward for risk-taking," as taught in the schools of the land, is turned upside down.

A small savings bank depositor can obtain interest of two or three percent with little *formal* risk. However, because of the tendency to inflation which has persisted over most of the half century of monopoly capitalism, the entire interest return often merely compensates for the decline in the purchasing power of the saver's capital, and sometimes falls short of the loss in real values.

A small investor may purchase stocks and receive four to six percent annually in dividends. If he is reasonably lucky in his selection of securities and timing, he will average as much again in the appreciation in the value of his shares, for a total return of eight to 12 percent. But he risks losing out altogether through the vagaries of the stock market and his unavoidable ignorance of the full situation in particular corporations. The cards are stacked against his buying and selling the "right" stocks at the "right" times. Often, he will be urged by promoters to buy particular securities *after* they have been marked up in price through advance purchases by "inciders" who knew that profits would increase. As he is buying, the "insiders" may well be unloading, to anticipate the next downturn in profits. The small investor is apt to have money for investment only in good times, when stock prices are high, and is often forced to sell in bad times, when stock prices are low.

The men with the really big money, participants in or closely connected with the highest financial and political circles, are able to reap fabulous rates of profit from the actual control of corporate affairs, and *without substantial risk*. They avoid risk because they themselves can arrange to acquire their profits of control, they know before the event those happenings which dictate the advisability of purchases of sales, and have money when the best opportunities arise.

We are told, for example, that Laurance Rockefeller multiplied a portion of his capital five times in as many years through investments in a series of corporations in which he took control.[24] That is the equivalent of 38% compounded annually. The eight to ten times rise in the values of the "blue chip" investments of the Rockefellers, Mellons, and du Ponts, is partly traceable to control on a higher level—the ability to establish Federal government policies designed to enhance the profits of these families' controlled corporations.

This difference between an ordinary return beset with risks, and a riskless king-sized rate of profit, is what inspires the numerous battles for corporate control in America. It explains why a corporate directorship, even in a company without book profits, is a valued prize.

Some will say: if a man can make 38% each year, that is the American way, that is the reward for competitive enterprise, and more credit to the winner. One may have whatever moral judgment he wishes, but he should be aware of the circumstances and consequences of the 38% profit. Usually it is possible not because of any particular ability on the part of the beneficiaries, but because of the wealth already in their possession, mainly through inheritance. The acquisition of the profits of control, although in rivalry with other groups of powerful men, furthers the process of monopolization of the entire economy. It is realized mainly as extra-large profits, at the expense of the labor of the working population, in a variety of ways which are none the less costly for their frequent invisibility. Finally, control profits are often accomplished through business and government policies which reach new depths of irresponsibility to the general welfare.

The following is a partial listing of the ways in which control is used to garner extra profits:

(1) *Acquisition, without investment, of large initial blocks of shares as "promoters' stock."* This device, in the happy never-never world of college professors, was stopped by Securities and Exchange Commission regulations. Actually, if it has become less important, it is only because fewer enterprises than formerly are started through new

corporations. In those industries where new companies have been started during recent years—e.g. uranium, natural gas—promoters' shares have been taken with a lavishness equalling any known in past boom periods.

Thus the promoters of Westcoast Transmission, Ltd., a natural gas pipeline company, dealt themselves 625,000 shares of stock at 5 *cents* per share, and then proceeded to sell stock to the public at 5 *dollars* per share. The investment bankers, the highly respected firm of Eastman Dillon & Co., claimed that "no inference" that the two prices "should necessarily bear any relation to each other is justified."[25] This brazen explanation is all that is necessary to satisfy SEC requirements.

(2) *Placement of members of the control group or their relatives in jobs paying fat salaries and carrying other prerogatives, such as virtually unlimited expense accounts.* In many smaller corporations, a major part of total profits are taken out in this way. In larger companies, while substantial, this item is relatively less important. Nevertheless a substantial part of the $8,777 million in compensation of corporate officers in 1953[26] falls into this general category.

(3) *Channeling of all banking business to the institutions of the control group.* This involves interest on bank deposits, underwriters' discounts on new securities, fees for financial advisory services, fees for the handling of fiduciary services, and profits from control of various sinking funds and pension funds (see Chapter IV).

(4) *Channeling of orders for materials and supplies to corporations under related control.* A recently published example is the purchase by Ford Motors of designing services from the Walter B. Ford Design Co., a family concern.[27] Not satisfied with its $15 millions in annual dividends, the Ford family also insisted on taking extra profits through this means, as well as through payment of huge salaries to family members.

(5) *Sale of goods or property at a favorable price to corporations under related control.* An example is the virtual gift by Olin Mathieson Chemical Corp. of valuable oil properties to an oil company owned by the corporation's control group (Olin family, Thomas S. Nichols, and John W. Hanes, a banker with Morgan connections). The oil company paid no cash, will pay 80% of the produce until several million have been turned over, and then will have the property free and clear.[28] This form of transferring title is typical for oil and mineral properties, since it permits the profits to be reported as low-cost capital gains.

(6) *Channeling of legal, engineering, accounting, and advertising*

fees to related firms. A recent example, unusual only in the publicity surrounding it, was the action of Thomas I. Parkinson of the Equitable Life Assurance Association in paying out multi-million dollar advertising fees to his son's firm. Because of an internal squabble, a scandal was made of this and Parkinson was forced to resign. But obviously his big business associates did not regard this perfectly "normal" way of acting as in any way reprehensible. Parkinson was retained as a director of such corporate giants as American Tel. & Tel., Chase National Bank, and Westinghouse, and as an overseer of the proper upbringing of the young—a trustee of Columbia University.

(7) *Use of inside information.* Dollarwise, this is the most important of all. The service fees collected by bankers and lawyers, the salaries and bonuses collected by directors and officials of corporations—large as these are—are small in comparison with the dollar value of the information about business affairs obtained by these "insiders" of the controlling circles.

A frequent situation is for the control group to decide to build corporate properties in a certain area, and in advance, through dummy companies, buy up land cheaply there so as to realize the profits from its sale to the controlled corporation. Similarly, the control group of a most powerful corporation, deciding to offer to buy out a weaker firm, will purchase shares of the weaker company and reap a pretty profit when the main corporation makes a favorable offer for purchase of the assets of the smaller concern. The Eastern Air Lines-Colonial Airlines case (see Chapter VI) is an example.

Often, when a corporation announces an increased dividend, prices of its shares on the stock exchange decline instead of rise. This is because the price has already "discounted" the increased dividend. The "insiders" who *decided* on the dividend bought up shares some time ago, at much lower prices, before they voted the higher dividend at the Board of Directors meeting, and then sold the extra shares and took their profits just before or immediately after announcing their decision.

STOCK MARKET PROFITS

Only insignificant and incidental stock market profits are made by petty speculators, whether they be "hunch gamblers" or "students of trends." The real profits are made by the "speculators" who take no risk. They bet on a "sure thing," because they control the situation and decide the event which will determine the trend of market prices.

The stock market, as a general medium of speculation, has never regained its prominence of the 1920's. But so far as the control groups, the "insiders" are concerned, stock market and real estate deals have become the most important means for extracting the profits of control. In the six years 1924-29, the period of the "bull market" of the 1920's, net capital gains (less losses) shown on income tax returns totalled $16.6 billion. In the six years 1946-51 the corresponding figure was $30.7 billion.[29] During this later period capital gains reported on income tax returns came within ten percent of the totals of dividend receipts reported.

The figures cited fall far short of portraying the full extent of this development. A very large proportion of capital gains are never reported on income tax returns. They are transferred through gifts, wills, or other transactions, sometimes through several generations without ever being realized in taxable forms. Furthermore, the figures end with 1951, prior to the "Eisenhower bull market" of the middle 'fifties, during which capital gains undoubtedly jumped far ahead of the 1946-51 rate.

Economists teach that capital gains are accidental, speculative income, without economic significance. Nowadays, certainly, that is wholly inaccurate. Capital gains, like other forms of appropriation of profits, are derived from the exploitation of labor buttressed by control of natural resources. Far from being accidental, they result from systematic arrangements to put profits into that form in order to reduce taxes as permitted by discriminatory tax laws. And thereby an additional cut is taken out of the incomes of the majority of the population, who have to pay higher taxes to compensate.

Of course, some of the capital gains are realized by small speculators. But this is much less the case than during the 1920's. The capital gains are mainly those of large operators, the really top Wall Street figures, as well as the lesser empire builders who function under their wing and with their financial support.

Capital gains provide the largest single source of profits of control. Add the many billions each year from the other forms, and only one conclusion is possible.

The control groups in corporations, holding but a minority—and often a very small minority—of the total shares, extract more profits by virtue of their control position than all of the millions of small and medium-sized shareholders taken together.

Since the bulk of these extra profits are reinvested to further increase profits and control, there are the following general results of this process:

(1) A rapid increase in the concentration of ownership and control of corporations;

(2) A sharp intensification of struggles for corporate control among various groups.

STANDARD POWER & LIGHT

The 1939-40 hearings of the Temporary National Economic Committee brought out a number of cases where financial giants battled to win control of great corporations, and to capture the profits derived from those controls. As an illustration, consider the Standard Power & Light Corp., one of the large utility holding company setups of the 1920's. From 1926 through 1929 this was jointly controlled by two banking groups, the Byllesby interests of Chicago and Ladenburg, Thalmann & Co. of New York.

These two interests had a written agreement for the division of the profits of control. A stockholders' suit filed in 1929 identified $5 million in profits which the Byllesby interests had already obtained, in a three-year period.

However, this stockholders' suit was no complaint of defrauded small stockholders or overcharged electric power customers. It was a device of another group of financiers who used the exposé to wrest control from the Byllesby interests. The rival syndicate, which was successful, consisted of the American branch of the Schroder banking interests and the financier Victor Emanuel. Behind this syndicate stood the Rockefellers and Dulleses, the Anglo-German Schroder interests, and the successors to the Belgian munitions king, Alfred Lowenstein.

The previous group were pikers compared with the objectives of the new and more powerful syndicate which succeeded in winning control of Standard Power & Light.

The president of Schroder Trust, a key firm in the new syndicate, explained how most of the $137 million required for buying control could be raised from outsiders, the inner clique needing only $20 million: "For the $20 million still to be raised, we would have available earnings of $15,250,000, which would represent a *return of 76¼% per annum* on the money to be raised (emphasis in the original)."[30]

That phrase, underlined in the memorandum—76¼% profit—was the real object of the fight for control.

The $15 million was explained in detail, one-third to come from dividends on stocks of subsidiary companies to be seized by the control syndicate, the remainder from "management earnings," "engineering earnings," and "financing charges." Nor was the $15,250,000 the whole

story, for: "Nowhere in this memorandum have I discussed the many advantages that would inure to the bankers in this situation. I have thought this was too apparent to make any comment; it is sufficient to say, however, that they would be assured of an immense amount of prime public utility securities each year that would be purchased from friendly hands, and that their position in the situation would be even more attractive than that of the operators."[31]

The memorandum explained how the profits of the control group would be kept from public knowledge through the manipulations of accountants: "it has been done in many of the largest and most important companies in this country."

Deeply involved was Allen Dulles, later Director of Central Intelligence in the Eisenhower Administration, and the Dulleses' law firm, Sullivan & Cromwell, which explained to the syndicate that: "the two gentlemen's agreements are not legally binding, as we already understand, but that they have worked perfectly and will continue to do so as long as they are between people who have confidence in each other and who wish to play ball."[32]

Thus the affairs of great corporations are run by banking groups under extra-legal agreements for the division of the super-profits derived from the control position. The greatest upholders of "law and order" and "our way of life" run their affairs by secret agreements, trick accounting, and the advice of lawyers who help them cook up their deals while spouting the highest moral principles in public.

Of course, the dubious character of these proceedings accentuates the instability of any particular control arrangement, increases the opportunities for the "gentlemen" to cease "playing ball," for a reshuffling of forces and a renewed battle for control. But these struggles involve only the identity of the particular beneficiaries, not the character of the control or the extraordinary profits derived.

CHAPTER IV

The Spider Web

HAROLD STANLEY, OF Morgan, Stanley & Co., wrote the TNEC in 1939:

> Whatever may have been said pro and con about the existence of so-called "banker domination" in the past, the truth is that it simply does not exist today. . . . Allegations of "banker domination," like those of the "spider web" theory of control, have been repeated so often and arbitrarily, and so fancifully, that they shape the thinking on economic questions of may well-meaning and intelligent citizens. . . . For the most part such talk has been advanced by persons who have had no practical experience in banking or in industry and by persons intent on creating sentiment for the abolition of private enterprise.[1]

This eloquent denial has been built up, rationalized and "documented" by the monopoly apologists and no few "well meaning and intelligent citizens" taken in by the arguments of the bankers and their covert spokesmen.

Actually, the term "spider web" chosen for attack by Mr. Stanley is an excellent one to characterize the complex network of financial institutions through which the oligarchy runs the economic life of America. If anything, the term is inadequate. The reality is not so simple in structure and clear in function. Often devious in its operations, the network throws out strands in many directions, strangling and absorbing more and more of the country's economic life.

Chief institutions in the "spider web" are the banks of various kinds, the insurance companies, investment trusts, holding companies, and foundations. And no account would be complete without considering the special role of the great corporate law firms.

Each type of institution has its special role in the control of industry and in the appropriation and investment of profits. Strong ties of ownership cemented with interlocking directorates link financial in-

stitutions of different kinds in an inner circle of coordinated power. Similar strands extend from the inner circle to the great corporations of industry, transport and utilities, through which billions of profits extracted from the population of this and other countries are funneled to the central oligarchy.

All weaker economic units, in greater or lesser degree, are entangled victims of the web, including smaller business and agriculture, and the individual citizens as workers, householders, and personal borrowers. They may be ensnared by direct exploitation, by the manifold devices of monopoly domination, by indebtedness, or by a combination of these. All pay higher taxes to compensate for those avoided by the means available to high finance, described in this and later chapters.

Properly speaking, there is not one such spider web, but a number, each ruled by different interests, rivals in certain areas, partners in others. Rivalries also exist between the different types of institutions, each striving for a stronger position. During the past twenty years, there have been important changes in the balance of power.

The overwhelming position of the financial core of the "spider web" in the control of corporation shares and in the supply of capital is illustrated in Table 4.

The $88 billion of corporate stocks held through these financial institutions comprised 33% of the $268 billion in stocks outstanding.*[2] Another 35% was owned by the one-tenth of one percent of the population with incomes of over $50,000 (besides their holdings in trust funds).[3] Much of this 35% was carried through investment banking and brokerage firms, and personal holding companies. Moreover, included among these individuals with incomes of $50,000 or more are the much smaller number who control the network of financial institutions.

Obviously, this oligarchy has solid stock control of the major corporations of America.

The $80.7 billion of corporate credits outstanding shown in the table exceeds 60% of the total, and the $10.3 billion of new long-term money arranged by financial institutions is almost all of that category.

There follows a discussion of each of the major types of financial institution, explaining the particular role of each in the control network and in the extraction of tribute from the population, and identifying the leading companies.

* Or 35% of an alternative estimate of the total, $250 billion, shown in the same source.

TABLE 4. STOCK OWNERSHIP AND SUPPLY OF CORPORATE FUNDS BY LEADING TYPES OF FINANCIAL INSTITUTIONS, 1954

(*billions of dollars*)

Type of Institution	*Stocks Owned or Controlled*	*Corporate Credits Outstanding*	*New Long-Term Money Arranged*
Commercial banks		$26.9	
Trust depts., banks and trust companies	$62.6[a]	15.6	
Investment bankers and brokerage houses	[b]		$8.0[d]
Life insurance companies	3.4	34.2	2.1[d]
Fire & casualty insurance companies	6.5	0.6	
Investment trusts	7.3	0.4	
Mutual savings banks	0.6	3.0	
Personal holding companies	[b]		
Foundations and university endowments	7.6		
Law firms	[c]	[c]	[c]
Known totals	88.0	80.7	10.3

[a] Other estimates run as low as $40.5. That shown is from the source which specializes in trust business. In any case, allowance should be made for the undervaluation of stocks in trust accounts.

[b] Not available. The stock holdings of investment bankers, brokerage houses, and personal holding companies, combined, are comparable with those of the trust departments of banks.

[c] Small direct holdings, but involved in all major transactions.

[d] Domestic issues only. Figures based on estimate that one-half of all private placements go through investment bankers, the other half arranged solely by the insurance companies.

SOURCES: *Trusts and Estates,* Feb., 1956; *Factors Affecting the Stock Market,* (Senate Banking & Currency Committee, 1955), Table 6, p. 96; *Investment Dealers Digest,* Corporate Financing Directory, 1955; *Life Insurance Fact Book,* 1955; *Federal Reserve Bulletin,* Feb., 1956.

COMMERCIAL BANKS

In form, a bank is a mere intermediary which collects the savings of many depositors for the use of selected customers who need these funds as capital, and will pay interest for them. In the complex modern business world, however, the banks have acquired vast powers that go beyond the simple sum of these many transactions.

Their loans to the business firms of the country give them complete access to information of the affairs of these companies, so that the banks have become the nerve centers of the economy, the main storehouses of commercial intelligence.

Moreover, the banks are the manufacturers of the bulk of the

country's money supply. Coins and paper currency are of minor importance in business affairs. The main money consists of bookkeeping entries of deposits in the banks, out of which most business payments are made by check. Today in the United States about 80% of the money supply consists of these demand deposits, only 20% of currency.* Whenever a bank loans money, it causes the creation of an almost equivalent amount of deposits, so that the lending activities of the banks are the main effective means of money creation—usually more potent than the issuance of currency by the Federal Treasury. By regulating deposit money, the banks strongly influence interest rates and commodity prices. Credit inflation has become more potent in our country than currency inflation. Booms are permitted—and extended to great heights—through credit inflation. Crises are often precipitated by the collapse of the credit pyramid, and deeply involve the entire banking system.

Occupying a central place in the country's finances generally, the commercial banks play a more limited role in the specific field of financing industry, as can be seen from Table 4. These banks concentrate on short and medium-term loans, rather than long-term credits. They supply mainly working capital, and comparatively little fixed capital for the expansion of capacity.

The large commercial banks also finance the speculative activities of their favored accounts, and the underwriting and trading activities of investment bankers and stock brokers. These loans are often for only a few days at a time, involving an extremely rapid turnover of funds. Thus in 1956 the First National City Bank was making loans to brokers and dealers in securities at an annual rate of $24 billion, an amount equal to many times its total volume of loans outstanding at any one time.[4]

The very rapid growth of concentration in banking fosters concentration in industry and trade. Local enterprises, accustomed to borrowing from local banks where they are known, often are cut off from funds as these banks are swallowed up by large banking chains and bank holding companies.

The effects are very marked in times of boom and "tight money." Large companies, able to get ample bank funds, can expand operations to the utmost. Small companies can rarely get additional funds, and sometimes have their existing credit lines curtailed. They must pay higher interest rates for what they can borrow. They cannot take

* In addition to various forms of quasi-money, such as short-term government securities.

full advantage of "good times." Many fall victim to the credit squeeze, either being forced to sell out to one of the giants, or becoming business failures in the midst of the boom.*

Credit discrimination reaches its climax in time of financial crisis. The largest, best-connected corporations are permitted to maintain their credit lines unimpaired. But the smaller, "independent" businesses have their notes called when due. Now they no longer have the option of selling out. The many that fail simply go on the auction block, where they are picked up for a song by the bank-associated giants.

Until recent decades the commercial banks serviced mainly business firms, and the large banks limited their accounts to the most affluent corporations. However, in the intensified hunt for greater supplies of capital and larger profits, the commercial banks have increasingly added the servicing of middle class individuals and workers.

Most large banks have raced to establish branches in residential areas in order to collect the deposits of the maximum number of individuals. They have entered actively into the business of granting small consumer loans and home mortgage loans—lines of endeavor which have multiplied many times. The small pawn shop has given way to the streamlined branch of the multilbillion dollar bank.

These "retail" services to the small consumer are the most profitable of commercial banking operations. On consumer loans the rate of interest is usually 12% or more as compared with 3%-4% on loans to the largest corporations. Small checking account depositors, far from receiving interest, pay monthly service charges to the bank for the privilege of writing checks.

At the same time, the expansion of this field of activity permits the rapid growth of bank resources and capital, and hence an enlarged scale of operations in the field of industry. Legal requirements limit a bank's loan to a single customer to 10% of the bank's capital. But loans running into the tens of millions are needed for the operations of the industrial leviathans. The banks which come to the top in the accumulation of deposits and capital are able to monopolize this business, to intensify their contacts and power position in industry,

* Between the second quarter of 1955 and the second quarter of 1956, manufacturing corporations with assets of over $50 million increased their bank borrowings by 46%, while those with assets of under $1 million were able to increase their bank borrowings by only 7%.[5] (The difference is exaggerated, but not decisively, by the method of statistical compilation used by the government agencies.) The many complaints of inability to borrow by small corporations showed that this was a forced containment of their credit facilities.

and at the same time to subordinate weaker banks which must depend on them for participations in loans.

THE TWENTY GIANT BANKS

The Bank of America, National Trust and Savings Association, which pioneered in "retail" banking, emerged at the end of World War II as the largest commercial bank in the country. The Guaranty Trust, which 25 years earlier was on an approximate par with the two other very large banks in New York City, remained a "wholesale" bank, and declined relatively to less than half the size of the Chase Manhattan and First National City Banks.

Table 5 shows the twenty largest banks in the country at the end of 1955. Their combined resources amounted to $64 billion, approximately 30% of the total resources of all of the 14,000 commercial banks in the United States. Moreover, through their position of leadership in the placement of credits and determination of banking policies, these twenty banks, together with certain smaller banks under identical control dominate the commercial banking business of the United States.

Their financial influence is measured more accurately by loan statistics. Just 17 of these 20 banks, in October 1955, accounted for 52.1% of all member bank loans to manufacturing and mining companies; 61.2% of loans to transportation companies, and 70.9% of loans to all large corporations having assets of over $100 million.*[6]

Nine of the 20 are in New York City. Eight of these nine accounted for 63% of all business loans of the billionaire banks, and 26% of all business loans of all Federal Reserve member banks in the United States.[7] Qualitatively, their leadership extends to determination of national banking policies in addition to allocation of business and control of many smaller banks.

The listings of the largest owning groups in the table are derived from a variety of sources, including the unpublished manuscripts of an outstanding student of American finance capital, the late Benjamin Allen. In general, where a family name is shown, this represents the largest known holder. Usually, however, control of the bank does not reside in that family exclusively, but in a grouping of interests.

* Statistics of Federal Reserve Board, covering banks with deposits of over $1 billion. This happens to coincide with the banks listed, except for the three chain banking systems shown in the table.

pension trust funds. By September 1955 banks held over $12.5 billion in trust for such funds, almost $7.5 billion held by 13 large New York banks. The employers select associated banks as trustees. These banks use the funds as they see fit, rendering accounts to employers, rarely to the workers.[11]

Thereby the trust department bankers obtain still more funds to merge with the billions of the wealthy in buying up control blocks of company shares. The security of the workers is limited by the liability of these investments to depreciation in time of crisis, and by the ability of the banks to use the funds as a club against labor in time of acute class conflict.

By 1954, total personal trust assets exceeded $100 billion, five or six times as much as in 1931. This heightened centralization results partly from the increased share of the national wealth in the hands of a tiny group of millionaires. Also, the growing complexity and scope of operations of American capitalism increases the incentive for rich families to pool their resources and information through banks as a means of establishing control over still more profits. Compelled by popular pressure to accept higher income tax rates, these interests were able to frame the law to leave loopholes through the use of trust accounts. Many of the directors of trust companies are lawyers, with a primary function of manipulating accounts so as to minimize the taxes paid.

The rapid increase in personal trusts signifies a further increase in the concentration of control over American industry. As shown by Table 4 by the end of 1954 the personal trust departments were far and away the most important control center for huge blocks of stock, having almost one-fourth of all the shares in the country.

The handling of trust accounts is much more concentrated than commercial banking. Only one-fifth of all banks are licensed to do trust business. And with most of these the business is nominal. Table 6 shows the geographical distribution of personal trust assets.

The ten Wall Street banks previously mentioned (including one private bank) handle the bulk of the city's dominant share in the country's trust business.[12] Each (with one possible exception) had more than $2 billion in personal trust assets in 1954. They are listed in approximate order of trust assets in Table 7.

Chase Manhattan handled some $14 billion of personal trust assets in 1954-55. These represented the holdings of a few thousand families, averaging several millions each. For these families, Chase Manhattan collects perhaps a half billion yearly in interests and dividends. Taken

development." Then, at the turn of the century, the trust—or "fiduciary"—business mushroomed. U.S. Trust Company's income from this source multiplied twenty times in the next fifty years (and the value of trust assets increased even more rapidly).[8]

The currently typical joint organization of commercial banking and trust functions provides distinct advantages to the owners. Through the trust department of the bank they coordinate their investments, putting together concentrated blocks of shares, sufficient for control or a share in control of selected corporations. These corporations then have access to the resources collected from many individuals and enterprises, and are thereby able to expand more rapidly and increase the profits of the control group. Often the trust department directly runs or participates in supervising industrial corporations.

The National City Bank said of the operations of its Trust Affiliate:

> The principal business of the City Bank Farmers Trust Company is the care and management of other people's money. The extent of our business is measured not by our balance sheet figures, but by the size and types of the funds under our control or supervision. The amounts involved run into the billions, and our investment activities range from the management of funds for individuals, corporations, and charitable, religious and educational organizations to the operation of private business for which we are responsible under wills or trusts.[9]

Personal trust accounts originated in the handling of wills. Estates were left in the "trust" of the bank or trust company for the benefit of the heirs. While this continues as the major form of personal trust, recent decades have seen a rapid flourishing of living trusts, wherein people of wealth transfer a portion of their assets to the management of the trust companies.

The trust department is far more than an agent. It takes on all the attributes of ownership except for the appropriation of profits, as illustrated by this description, by the Continental Illinois Bank and Trust Co., of typical actions of a will trustee:

1. Takes physical possession of assets, takes title to property.
2. Considers immediate needs of beneficiaries and arranges to pay income if necessary.
3. Reviews assets, buys and sells, invests funds.
4. Collects income, makes payments as provided.
5. Handles all tax angles, looks for tax funds, distributes assets as provided.[10]

During the past decade the trust departments have gathered more billions of assets, nominally belonging to workers—the corporate

TABLE 5. TWENTY LARGEST COMMERCIAL BANKS, DEC. 31, 1955

Bank	*Headquarters City*	*Resources 12/31/55 (millions)*	*Largest Owning Families or Groups*
Bank of America, NTSA	San Francisco	9,903[a]	Giannini
Chase Manhattan	New York	7,509	Rockefeller
First National City	New York	7,212[a]	Stillman-Rockefeller
Manufacturers Trust Co.	New York	3,210	*n.a.*
Guaranty Trust Co.	New York	3,191	Morgan
Chemical Corn Exchange	New York	3,156	Goelet
First National	Chicago	2,977	Chicago
Bankers Trust	New York	2,785	Morgan
Continental-Illinois Bank & Trust	Chicago	2,739	Chicago
Transamerica Corp.[b] (banks only)	San Francisco	2,688	Giannini
Security-First National	Los Angeles	2,141	Los Angeles
National Bank of Detroit	Detroit	2,015	du Pont
Marine Midland Corp.[b]	New York	1,967	Rand
Hanover	New York	1,959	Woodward
Mellon National	Pittsburgh	1,942	Mellon
First National	Boston	1,824[a]	Boston
Irving Trust	New York	1,733	*n.a.*
Northwest Bancorporation[b]	Minneapolis	1,687	*n.a.*
American Trust Co.	San Francisco	1,542	San Francisco
Cleveland Trust	Cleveland	1,447	Mather

n.a. Not available.
[a] Includes assets of wholly owned subsidiaries and affiliates, where published.
[b] Bank chain.

SOURCE: Resources from financial statements.

TRUST COMPANIES AND TRUST DEPARTMENTS

Ten Wall Street banks hold in trust some $50 billion of the personal assets of the wealthiest families in America, about double the amount of ordinary assets shown in their published reports. Through the $50 billion the big ten wield a special power, for this sum includes the largest and most intense concentration of corporation shares in the world.

These funds are held in special trust departments, originally separate companies, for managing rich peoples' investments and supervising their businesses. Little known to the general public, and largely ignored by academic economists, these are peculiarly instruments of the financial oligarchy in the era of monopoly.

The U.S. Trust Company of New York, organized in 1853, claims to be the oldest in existence. It writes: "For 50 long years the Trust Company's trust business was nearly nil. . . . In retrospect we can only marvel at the patience that nursed this infant activity to full

together, the big ten concentrate a large part of the properties of America's economic royalty, perhaps 20,000 families.

TABLE 6. PRINCIPAL CENTERS OF PERSONAL TRUST ASSETS, 1954

Area		*Personal Trust Assets (billions)*
New York Federal Reserve District		$58.0
New York City (alone)	*$53.0*	
Illinois		10.5
Pennsylvania		7.0
California		4.7
Ohio		3.5
Massachusetts		3.2
Total of above		$86.9
NATIONAL TOTAL		$100 plus

SOURCE: New York estimates based on data contained in Federal Reserve Bank of New York, *Monthly Review of Credit and Business Conditions,* June 1955. Other states based on Annual Report of the Comptroller of the Currency, for national banks, and state banking department reports for state banks.

Despite its magnitude, the personal trust business contributes but a small portion of the profits of the great downtown banks. Fees collected have averaged less than one-tenth of one percent of the assets handled. Basically, this is because the trust customers are the select few who own the banks or are closely associated with the owners. They are not interested in making profits out of themselves, but only out of the smaller depositors and companies.

Outside of New York, the two leading Chicago banks probably have over $2 billion each in personal trust assets. The First National Bank of Boston reports close to $2 billion, as do the three leading Philadelphia banks.

The power generated by concentrated investment of trust funds in industrial corporations is translated into influential and profitable relationships with these corporations.

The corporate trust or fiduciary activities of the banks are a case in point. The bank acting as *bond trustees* represents all the scattered bond holders of a particular company, and exercises their rights and privileges. The *stock transfer agent* performs technical functions which give it a complete knowledge of the corporation's owners and of all shifts in ownership. It thereby is in a strategic position to forestall attempts by rival financial groups to gain control through stock purchases. The *stock registrar* has secondary technical responsibilities of the same general character.

TABLE 7. TEN LARGEST WALL STREET TRUST DEPARTMENTS

(personal trust assets in billions)

Chase Manhattan Bank	($14)
First National City Bank (through City Bank Farmers Trust)	
Bankers Trust	
Guaranty Trust	
United States Trust Co.	($5)
Hanover Bank	
New York Trust Co.	
Bank of New York	
J. P. Morgan & Co.	($2)
Brown Brothers Harriman & Co.	

SOURCES: Banks identified from information contained in annual reports and in reports of stockholdings in major corporations submitted to Federal agencies. The order of the institutions is based on comparative earnings of trust departments, and collateral information. The $14 billion for Chase Manhattan Bank was revealed when it transferred from national to state charter in 1955, causing the dropping of its personal trust assets from the New York State total for national banks shown in the Annual Report of the Comptroller of the Currency. The $5 billion for U. S. Trust Company was indicated in a special release of Jan. 1957, and the $2 billion for J. P. Morgan & Co. was contained in its annual report for 1956.

When an industrial company is controlled by a single group, these functions will be shared by banks of that group. When two groups share control, they will divide these fiduciary assignments and the fees that go with them.

Large New York banks perform at least one (and usually all) of these three functions for 99 of the 100 largest non-financial corporations in the United States.

Many of the 99 also have these functions performed by banks in other cities, notably in areas where they operate, or where there are large stockholdings. But the predominance of the large New York banks in this business is overwhelming.

An authoritative text by four professors states: "The financial aspect of corporate fiduciaryship is indeed an amazing one. The figure of over fifty billions of personal trust assets is practically beyond comprehension. Yet this is merely one phase of their activities. The volume of corporate trusts administered is two or three times as large. Although the economic, social, and political aspects of such financial magnitudes will not be discussed here, these points should not be overlooked—in fact, they can hardly be overemphasized."[13]

The good professors may be pardoned for their timidity in discussing the "economic, social, and political" significance of this state of affairs. The main point is clear enough—through trust activities a few New York banks and the influential families behind them

exercise a vital, and often decisive lever of control over all of the key points of the economy. Moreover, through the rapid expansion of this form of activity, the concentrated power that it represents has become still more marked in recent decades.

INVESTMENT BANKERS

Investment banking is the mobilization of the basic capital of industry, as distinct from the short-term working capital supplied by commercial banks. Investment bankers convert the money capital of many people into huge unified blocks of productive industrial capital. They sell the stocks and bonds which represent ownership of that capital. They play the key role in the organization of new companies, in arranging mergers, in decisive expansions of capacity.

The leaders in investment banking, therefore, have been, historically, at the summit of the industrial-financial empires of the oligarchy. The House of Morgan, which evolved the investment banking function most successfully, was the leading financial power of United States imperialism during most of its development.

The investment banking houses have done more business in recent years, dollar-wise, than in any previous period of comparable length. But their proportionate share of financial business has been reduced, and their functional role is less decisive. Fewer wholly new major corporations are established, and the life insurance companies have taken over part of the function of mobilizing long-term capital.

Believers in the reformation of American capitalism cite this trend as evidence of the supposed demise of the power of high finance. But all that is really involved is a change in the relative importance of different types of institutions used by the same moneyed interests. It is true that some very prominent investment bankers who did not succeed in creating a rounded financial apparatus have lost ground in general influence. But their loss is the gain of others, a mere shift in power within the oligarchy. The general rule in the top circles is the common ownership or control of varied institutions of the financial network, to provide maximum functional flexibility.

This is all the more necessary because day-to-day investment banking operations, to be effective, must be in the closest conjunction with other types of financial institutions. Commercial banks supply investment bankers with vast short-term credits while the latter are disposing of securities purchased from industrial corporations. Intimate

relations are required with bank trust departments, insurance companies and investment trusts, buyers of the bulk of the securities underwritten by the investment bankers.

Prior to 1933 the leading investment bankers were organically connected with commercial banks and trust companies. Old investment banking houses also conducted commercial banking and trust activities, besides buying up previously independent commercial banks and insurance companies. Large commercial banks established investment banking subsidiaries.

The first major New Deal attack against the concentrated money power in 1933 was the enactment of legislation forcing the separation of investment banking from commercial banking. The Glass-Steagall Act prohibited commercial banks from engaging in investment banking business (except for government bonds), and prohibited interlocking directorates between investment banking and commercial banking companies.

This legislation was doomed to failure. It left untouched the vast aggregations of capital and the huge blocks of stock which comprised the ultimate basis of the control of industry by the financial oligarchy. It left untouched the more important interlocking directorates and other connections between industry and finance. It aimed to put a "competitive" pattern on one financial function, investment banking, when that function existed, and could only exist, in a world of monopolized banking and monopolized industry.

The result was a series of formal, organizational moves to meet the technical requirements of the new law. These moves not only failed to make investment banking "competitive" and "independent," but generally resulted in a further concentration of the investment banking business. The House of Morgan, for example, simply divided its manpower and offices into two main companies—J. P. Morgan & Co., as a commercial bank and trust company, and Morgan Stanley & Co., as an investment banking partnership. The old Morgan partners (including various members of the Morgan family) were designated either as directors of J. P. Morgan & Co., or as partners in Morgan Stanley & Co. (except for those going to the Philadelphia branch, reorganized as Drexel & Co.). The investment banking subsidiaries of the Chase National Bank, the First National Bank of Boston, and later of the Mellon interests, merged into a single new company, the First Boston Corp. The National City Bank merged part of its investment banking interests with those of Brown Brothers

Harriman in the new firm of Harriman, Ripley & Co.; while merging the other part of its investment banking business with California interests in Blyth & Co.

As with other forms of big business, investment banking is characterized by increasing monopoly, the formation of cartels, and the striving for domination. The four largest investment banking firms controlled 48% of the total business in 1950-55 as compared with 33% in 1927-32, and virtually *all* of the mammoth transactions.[14] The leading firms operate as a closed club which allocates territory and, according to precise formulas, divides among several hundred smaller firms the secondary business of gathering together capital from all parts of the country.

Once an investment banker organizes a new or merged combine, or initiates public financing of a former family concern, he remains its investment banker indefinitely. It is understood that no one else shall "poach" on the terrain. The industrial corporation which seeks "independence" and "shops around" for easier terms on which to obtain new capital finds a cool reception from the cartel members. These are the only ones who can mobilize sufficient blocks of capital, and generally they respect the "traditional banker" position. The reorganization of investment banking firms following the 1933 legislation scarcely rippled the waters. With loving care the bankers traced the "historical position" of each newly organized investment banking firm, its "successorship" to business previously managed by commercial banking subsidiaries.

Bonds and stocks are sold through investment banking syndicates. The investment banker connected with the particular industrial company is the syndicate "manager." He controls the entire operation, receives a special, overriding management fee; and handles the largest single block of the bonds or stocks. Normally, most other leading cartel members participate in the syndicate. Each sells its portion of securities to financial institutions and patrons within its particular sphere. In this way, the syndicate system preserves and strengthens the community of interest of all leading sections of the oligarchy in the various branches of the economy, and at the same time it reinforces the dominant position of a particular group in the affairs of certain industries and companies.

The investment banking cartel system does not bring perfect harmony among the financiers. Changes in the relative power of different firms lead to struggles between them. These in turn occasionally lead to changes in the banking connections of industrial cor-

porations. There is nothing surprising in such battles, nor in deviations from previous cartel arrangements. This is "normal" for monopoly capitalism, which combines to extract the greatest profits and to squelch weaker capital, while fighting most intensely within itself for supremacy. What is surprising is the comparatively few changes in banking connections which have occurred. During the past three decades, including the shattering experiences of the 1930's, the expansion of the second World War and the subsequent transformations in the economy, almost all of the major industrial corporations have maintained their "traditional" connections.

Those changes which have occurred in investment banking power have reflected changes in the relative importance of industries and of particular companies within an industry. Particularly keen has been the scramble to obtain leadership in new industries, such as natural gas, and new corporations entering the field of public financing, such as Ford Motors.

Other changes have taken place as a result of government regulations. In 1941 and 1944 government agencies ordered "competitive bidding" for the sale of bonds of railroads and power companies. These new regulations, unlike earlier New Deal legislation, were not mainly responses to the general public pressure against monopolies. There were elements of this, but perhaps more important was the pressure of midwestern banking groups, largely excluded from the investment banking business after the collapse of the Insull utilities empire. The competitive bidding regulations broke the cartel monopoly for these types of securities. It particularly affected the house of Kuhn, Loeb (railroads), and to a lesser extent Morgan Stanley. The main beneficiaries were the Chicago house, Halsey, Stuart & Co., and certain Wall Street firms, including First Boston and Blyth & Co.

However, while the competitive bidding requirements reduced the profits of the "traditional" bankers on new security issues, they did not seriously affect the retention of general financial control over the railroads and power companies. Competitive bidding was *not* required for stock issues, in which voting power resides. And in the case of bonds, the issuing corporation continued to name the bond trustee, the bank which retains the key position among the bondholders. To keep the winning competitive bidder in his place, he is required to pay, out of his commissions, legal fees to the law firm designated by the borrower. This is usually the law firm of the "traditional banker" that handled the business before competitive bidding was required!

Thus, aside from the gaining of commissions by certain houses,

nothing is changed. Midwestern banks and insurance companies are permitted to buy more bonds from Halsey, Stuart & Co., with which they are connected, but they have no more power than formerly in the affairs of the particular railroads and utilities.

Investment banking is a highly profitable business. The syndicate selling Ford stock in early 1956 charged a commission of $1.50, or 2.3% of the selling price of $64.50 per share. Despite the fact that the issue was "over subscribed" long before the commission was set, the syndicate collected $15,300,000 for an operation that required no tie-up of capital and no risk whatsoever.

Typical commissions charged for the common stocks of the very largest companies are 3%-4%, and for preferred stocks and bonds 1%-3%. For medium sized, but well established companies, the commissions for common stocks are in the range 5%-10%. A similar range of commissions applied to recent bond issues of weaker foreign countries, such as Israel and Cuba. For the speculative issues, such as the uranium mining companies, the investment bankers charge 15%-20% commissions.

Only in the case of competitive bidding have commissions been reduced, usually to less than one percent. Halsey, Stuart & Co. advocated competitive bidding on the grounds that it would save corporations excessive commission charges. But in those few places where it has industrial connections, not requiring competitive bidding, its concern for inexpensive service vanishes. In 1955 Halsey, Stuart issued $30,000,000 of bonds for Detroit Steel, a smaller company with excellent markets in the automobile industry. But the company was forced to pay the then high rate of 5% interest on the bonds, and a commission of over 4% for their sale.[15]

Yet commissions are a comparatively small part of the profits accruing to the investment banking cartel. Its main role is in the network of financial arrangements through which control over giant corporations is established, with the resultant access to hundreds of millions in the profits of control. And a corollary is the access to enormous profits from personal investments. The capital of the investment bankers' companies is but a small fraction of their personal funds and those of their associates. Their operations, perhaps more than any other type, provide the information required for the realization of rapid profits through stock market transactions.

The TNEC hearings thoroughly exposed the cartel arrangements of the investment bankers, and the interlocking of financial and industrial monopolies through their firms. As an aftermath of these

hearings, the government launched an anti-trust suit against seventeen leading houses, charging among other things that they exercised domination over industry: "By securing control over the financial and business affairs of such issuers by causing partners or officers of defendants to be elected to the boards of directors of such issuers, by utilizing defendant's influence with commercial banks with whom such issuers do business, and by controlling the reorganization committees of issuers . . . by using their control over issuers to increase their volume of business by promoting consolidations and mergers."[16]

After three years of depositions, and trial, the judge threw out the case, despite mountains of documentary evidence. Judge Harold R. Medina could find no conspiracy. While he was preparing this case for trial, he presided over the trial of 11 leaders of the Communist Party for conspiracy under the Smith Act. They were convicted and given maximum sentences.

For his role in both of these cases, Medina became a hero of high society, and received a major promotion in judicial rank. Cleveland financier Robert R. Young charged that the judge's obvious favoritism in the investment banking trial involved more than general class bias:

> When the Government's Investment Banking case against Morgan Stanley & Co., Kuhn-Loeb & Co., et al., came to trial in 1948, it was assigned by a Federal judge who sits on the Equitable Life board to another Federal judge who has one son in the Morgan law firm and another son in the Kuhn-Loeb law firm. The canons of judicial ethics adopted by the American Bar Association provide that a judge may not be the director of a lending institution. They also provide that a judge should not sit when a close relative is either a litigant or a counsel for a litigant.*[17]

The government attorneys did not object to this strange state of affairs, and the head of the Antitrust Division responsible for the case left it in process to return to work for one of the law firms which was defending the banks.**

During the period of the anti-trust suit and after its dismissal in 1953, the leading houses continued to carry out all of the "overt acts"

* The assigning judge was John C. Knox, director and member of the executive and finance committees of the Equitable Life Assurance Society, and trustee of the Union Dime Savings Bank, N. Y. The judge was Harold R. Medina, promoted to the Court of Appeals in 1951. One son, Harold R. Medina, Jr., was a member of the firm of Cravath, Swaine & Moore, representing Kuhn, Loeb and Union Securities in the investment banking case. Another son, Standish F. Medina, was employed by Davis, Polk, Wardwell, Sunderland & Kiendl, representing Morgan Stanley and Harriman, Ripley.

** John F. Sonnett, member of the firm of Cahill, Gordon, Zachry & Reindl, counsel for Dillon, Read & Co.

of the "non-existent" conspiracy. They continued to manage the securities issues of the same companies, to concentrate almost all of the business in their hands, to be represented directly and through connected banks on the same boards of directors. Table 8 shows the distribution of business among the 21 largest investment banking houses during the six-year period 1950-1955. The list includes 16 of the 17 concerns named as defendants in the government suit. Seventeen of the twenty-one companies have their principal offices in New York.

TABLE 8. LEADING INVESTMENT BANKING HOUSES, 1950-1955

Company	*Corporate Security Issues Managed or Co-managed* Value (*millions*)	Percent of Total
Morgan Stanley & Co.	4,398	14.7
Halsey, Stuart & Co. (Chicago)	4,243	14.2
First Boston Corp.	3,635	12.2
Blyth & Co.	2,151	7.2
White, Weld & Co.	1,214	4.1
Lehman Brothers	911	3.0
Merrill Lynch, Pierce, Fenner & Beane	897	3.0
Salomon Brothers & Hutzler	866	2.9
Dillon, Read & Co.	811	2.7
Kidder, Peabody & Co.	800	2.7
Smith, Barney & Co.	779	2.6
Union Securities Corp.[a]	748	2.5
Harriman, Ripley & Co.	725	2.4
Kuhn, Loeb & Co.	644	2.2
Stone & Webster Securities Corp.	562	1.9
Glore, Forgan & Co.	529	1.8
Goldman, Sachs & Co.	288	1.0
Paine, Webber, Jackson & Curtis (Boston)	267	0.9
Eastman, Dillon & Co.[a]	256	0.9
Equitable Securities Corp. (Nashville)	230	0.8
Drexel & Co. (Philadelphia)	196	0.7
Total, 21 leading companies	25,140	84.2
All others (about 500)	4,735	15.8
GRAND TOTAL	29,875	100.0

[a] Merged in 1956.

NOTES: Where two or more companies co-manage an issue, the value of the issue is divided equally among the co-managers. Total excludes $850,000,000 of Israel Government bonds, which were not distributed through ordinary investment banking channels.
SOURCE: Compiled from *Investment Dealers Digest*, annual Corporate Financing Directories.

A number of the companies are parts of centrally controlled groups. Morgan Stanley & Co., Smith, Barney & Co., and Drexel & Co., are all part of the Morgan financial empire. Blyth & Co. and Harriman,

Ripley & Co. are both related to the First National City Bank. White, Weld & Co., Kidder, Peabody & Co., Stone & Webster Securities Corp., and Paine, Webber, Jackson & Curtis constitute an integrated group of companies based on related New York and Boston interests. This group of companies also has important ties with the First Boston Corp. and its associated banks notably the Rockefellers'. Lehman Brothers and Goldman, Sachs & Co. have worked as a virtual joint partnership for many decades.

The dollar figures are not the sole measure of relative importance. If attention is restricted to the very large issues of the decisive industrial corporations, the lead of Morgan Stanley & Co. is more pronounced. During the six-year period covered by the table, there were 20 stock and bond issues each involving $100 million or more. Morgan Stanley & Co. managed eleven of these, First Boston Corp. managed three and co-managed one, Halsey, Stuart & Co. co-managed three.

Morgan houses are investment bankers for the largest companies in each of the main American manufacturing industries—oil, steel, autos, chemicals, and electrical equipment (the last shared with Goldman, Sachs), in addition to many companies close to the top in these industries, and leaders in other industries.

Nevertheless, a comparison of figures over the past three decades brings out certain shifts in relative position among the leading banking groups, insofar as their strength is reflected in this type of activity. During the depression, when weaker concerns could scarcely function, Morgan dominance increased sharply. But the Morgan position relatively declined during and after World War II, and in the latest six-year period the share of the Morgan companies was less than in the late 1920's. The investment banking business of the Rockefeller interests and their allies almost doubled. That of the National City Bank declined during the 1930's but regained the lost ground during the 1950's. The position of Halsey, Stuart & Co. and its midwestern allies, almost eliminated during the depression, was more than restored by virtue of competitive bidding.

LIFE INSURANCE COMPANIES

The life insurance companies have become much more important in the chain of Wall Street financial control. Today four-fifths of the population buy life insurance and half the net savings of individuals flow into the hands of the life insurance companies, a much larger proportion than during the 1920's.

The reason for the almost universal purchase of life insurance is not hard to see. Workers and small businessmen, well aware of their economic insecurity, seek thereby to provide a minimum of safety to their survivors. This protection is often thwarted by the general economic environment. Periods of unemployment, business losses, or illness, force discontinuation of premium payments. Even in recent "good times," many more policies have been closed out because of lapses or surrenders than because of the death of the policyholder or the maturing of his endowment. Less than half of the premiums paid in are returned as benefits. In the case of the small industrial policies sold to wage-earners, roughly two-thirds never get the benefits they have partly paid for. And inflation has slashed the real value of benefits received by the others.

Thus the insurance companies accumulate huge sums of money, which yield more billions in interest as they are invested. In 1955, $12.5 billion in premiums and $4.0 billion in investment and other income were collected. After payment of benefits, taxes, commissions and expenses of all kinds, as well as dividends, the companies had left a net gain in assets of $6 billion, and total assets reached $90.4 billion.[18]

Those in control of these vast billions use their power against the interests of the overwhelming majority of the policyholders.

The premiums charged have always been far higher than necessary to cover the actual risk of death. And during recent decades, while mortality rates were declining, the insurance companies sharply increased their rates. Between 1937 and 1952 the Metropolitan Life raised by 26% the net premium for a 35-year old man purchasing a given amount of ordinary life insurance. Ruthless cancellation of policies and expensive suits to contest claims are other forms of attack on policyholders.

The life insurance companies spend millions of the policyholders' money to advertise their concern with the people's health. But they themselves are the leaders in the big business lobby which fights against every extension of social insurance benefits, thereby opposing practical measures to improve public well-being and health.

During the great depression, the insurance companies foreclosed on about 200,000 farmers. The Metropolitan became the largest owner of farm land in the country and sold it at a handsome profit during the World War II inflation. In recent years the life insurance companies have again become heavy farm mortgagees, and in addition have taken mortgages on some two million small householders, who in event of

depression or individual financial difficulty will face imminent danger of eviction by these gargantuan creditors.

Some of the largest insurance companies have built huge apartment developments with tax-free concessions from state and city governments. Most of these have been strongholds of racial discrimination, and fights by tenants of Metropolitan to break down exclusion of Negroes met with arrogant company reprisals including eviction of tenants.

As employers of 400,000 workers, the life insurance companies are notorious in their refusal to recognize unions, and in their gross racial discrimination.

The provisions of the tax laws virtually exempt them from payment of income taxes. Premium income is totally exempt, and the effective rate of tax on investment income has been about 6%, enabling the insurance companies to expand their assets more rapidly than other companies.

Only for the small minority of large policyholders is the purchase of life insurance a really sound investment. They are unlikely to suffer cancellation through inability to make payments; they can afford to purchase larger policies at reduced premium rates—a practice instituted by leading companies in 1954. Much more important, the insurance companies cooperate with high income policyholders in complicated tax-gimmick arrangements involving loans on insurance policies and receipts of deductible interest on these, whereby the fortunate ones compel the government—that is the general public—to pay the bulk of the cost of their insurance.

The actual profits of the life insurance companies run into many billions each year. Yet the largest have no stockholders—they are "mutual" companies, while those which remain stock companies pay only nominal dividends. In these companies the Midas-men have carried to the ultimate the process of acquiring for themselves all profits through control of the corporation, rather than dividing them with smaller stockholders.

As early as the 1890's the insurance companies became important as a source of funds for the financing of the great trusts. The Morgan, Rockefeller, Kuhn Loeb, and other interests engaged in bitter struggles for control over these reservoirs of billions. Controlling shares were bought up at prices 1,000 times the dividend yield. By the first decade of the present century the large insurance companies were firmly in the hands of a few money lords.

Soon the vestigial payment of direct dividends was abandoned by

the most important companies, and they were "mutualized." A "mutual" company is nominally the joint property of the policyholders. Actually the laws designed by company lawyers make it virtually impossible for the policyholders to have any voice. The real purpose of mutualization was to eliminate any possibility of competing interests buying up control. The mutualization of Prudential, for example, was designed by Morgan lawyer Richard V. Lindabury to defeat the efforts of New Jersey bankers with large shareholdings to gain control.[19]

A historian friendly to big business described the motives for the mutualization of Metropolitan as follows: "Everybody dies, and his estate passes into other hands. Haley Fiske therefore held that Metropolitan should order its affairs so that there could never be a possibility of its stock coming into the possession of people who might try to install a management which would neglect or endeavor to tear down the work to which he and Mr. Hegeman had devoted a quarter of a century of their lives."[20]

The group in control at the time of mutualization maintains its position through a self-perpetuating board of directors, which replaces men on death or retirement with other representatives of the same interests, and selects trusted people as key executives.

The New York State Armstrong Committee hearings of 1905 exposed the many ways in which the profits of control were derived from life insurance companies. The exposé was a great scandal of the time, and "corrective" legislation was passed. But nothing really changed. The TNEC hearings of 1939, the Celler Committee hearings of 1949, and the New York State investigation of the Equitable Life in 1953 showed that the same practices continued.

By and large, these methods of extracting profits are the same as those shown for corporations generally in Chapter III. Particularly important for life insurance companies, with their huge reserves, are the profits they yield to controlling banks. In 1939, the nine leading life insurance companies kept on deposit in the Chase National Bank an average of $200,000,000 *without interest*,[21] a sum which could yield the bank a profit of $8 million yearly if loaned out at 4%.

James G. Harbord, a retired general and corporation official, was a director of Bankers Trust. In 1931 he was also made a director of New York Life, which thereupon deposited a million dollars with the bank. Harbord wrote a letter of appreciation to New York Life, adding: "I regard the directorship in those two companies as quite the best thing that has come to me in business life."[22]

During the past two decades, such uses have been surpassed by the new role of life insurance companies in the financing of industrial expansion. Here is how Marquis James describes the financing of Rockefeller Center by the Metropolitan Life Insurance Co. in the 1930's: "It was the largest single advance on real estate Metropolitan—or probably any other lender—ever made. . . . Rockefeller Center was, for practical purposes, identical with John D. Rockefeller, Jr. . . . At a club in South Carolina where he went for a little golf for the winter, Mr. Ecker (president of Metropolitan Life) met his friend Thomas Debevoise, attorney for Mr. Rockefeller. . . . Mr. Ecker proposed that Metropolitan purchase, up to $65,000,000, all the bonds Rockefeller Center had to offer. . . ."[23]

It should be mentioned that Metropolitan has three directors in common with Rockefeller's Chase Manhattan Bank, including the chief executive officers of each.

Between 1929 and 1955 corporate bonds held by insurance companies increased from $4.6 billion to $36.1 billion, and from 10% of total corporate debt to 39%.[24]

Life insurance companies supplied more than half the long-term funds for postwar corporate expansion. Moreover, they extended their range of activities, previously limited largely to railroads and public utilities, to industrial corporations as well.

The prewar $65-million Metropolitan loan to Rockefeller Center gives way to a 1953 total of $1,200 million in loans by Metropolitan and Equitable to the oil companies and their tanker fleets, including those of the Rockefeller-Standard Oil group.

In addition to formal loans, insurance companies engage in "sale-and-leaseback" arrangements with retail trade, real estate, railroad and trucking corporations, among others. Under these schemes, the insurance company purchases real estate or equipment, and rents it on long-term leases. The using corporation, through this device, reduces income tax liability. And the insurance company obtains 7-10% on its money instead of the 4-5% on mortgage loans.

The Armstrong Committee hearings exposed the use of life insurance company funds to buy up controlling shares in corporations, and legislation was passed which temporarily curtailed this practice. But fifty years later, by 1955, life insurance stock holdings had multiplied 20 times. In 1954 Equitable Life was the largest single holder in the Great Northern Railroad, Pacific Gas & Electric and Southern California Edison.[25]

The rapid development of life insurance industrial lending has cut into the position of the investment bankers. In recent years roughly half of all new bond issues have been "privately placed" with insurance companies, instead of being underwritten by investment bankers. This has led to considerable rivalry between insurance companies and investment banking houses. The rivalry, however, is tempered by identical Wall Street power centers of institutions of both types.

Through an agreement reached in 1942 (according to the government charge), insurance companies have refrained from competitive bidding for railroad and utility bonds, and purchase these mainly through the investment bankers.[26] For the private placement of industrial bonds, many large insurance firms retain investment bankers as financial advisors. The commissions these receive are smaller than for underwriting securities, but so are their expenses. Private placement has curtailed the availability of industrial bonds to smaller life insurance companies.

TABLE 9. THE BIG FOUR LIFE INSURANCE COMPANIES

Company	*Assets, 1955 (millions)*
Metropolitan Life Insurance	$13,936
Prudential Insurance Co. of America	12,521
Equitable Life Assurance Society of the U. S.	8,047
New York Life Insurance	6,051

The Big Four had almost half the assets of all life insurance companies, and, two-thirds of their industrial bond-holdings. They had, among them, 24 New York City bank directors on their boards in 1948. Interlocks extend beyond that throughout the range of industry and finance. The Celler Committee hearings used 32 pages to merely list the interlocking directorates of the 17 largest life insurance companies.[27]

It is characteristic of financial reform legislation that the New Deal law which limited interlocking directorates between commercial banks and investment banks did nothing to limit the equally important personal ties between the insurance companies and banks and trust companies.

The Metropolitan and Equitable, respectively first and third largest, are solidly in the camp of Rockefeller-Chase National Bank which dominates the third largest investment banking company. Morgan has a leading position in the Prudential and New York Life, plus owner

ship of the leading investment banking house (for details see Appendix 2).

Thus the strengthened position of the life insurance companies means a much stronger monopoly on the part of the two greatest Wall Street Goliaths while changing the balance of forces between them. This fact overshadows in importance and puts in proper perspective the real, but subordinate rivalry between the insurance companies and the investment bankers.

FIRE AND CASUALTY INSURANCE COMPANIES

These companies have not had the same mushroom growth as have the life insurance companies. But they figure more prominently in the apparatus of control through large scale ownership of shares in key corporations, the volume of such investment having multiplied fourfold between 1929 and 1954. For example, the Continental Insurance Co., of a group in which the Hanover Bank has a predominant place, holds large blocks of shares in that bank and in Union Carbide & Carbon, largest industrial corporation with which the bank is connected. It also conducts many of its securities transactions through the Hanover Bank and keeps its largest deposits there.

This business is very profitable. Premiums are set at about twice the average loss rate. But the main profits are derived from investment income and transactions. During the five year period 1950-54 the American Fore group, of which Continental is a part, cleared $15 million from its underwriting activities, $44 million in investment income, and $123 million in securities transaction profits. On the total of $182 million it paid federal taxes of only $14 million, or less than 8%.[28]

The five largest fire and casualty insurance groups, with their 1955 assets and principal connections, are given in Table 10.

TABLE 10. PRINCIPAL FIRE AND CASUALTY INSURANCE COMPANIES, 1955

Company	*Assets (millions)*	*Principal interests*
American Fore group, N. Y.	$993	Hanover Bank, some Rockefeller influence
North American group, Phila.	820	Morgan-Drexel
Hartford group	754	Morgan-Hartford insurance men
Home Insurance group, N. Y.	525	Manufacturers Trust, Chemical Bank
Royal Liverpool group	486	British controlled; U. S. Trust Co., American Trustee

INVESTMENT TRUSTS

The investment trust combines the funds of thousands of small investors to purchase a "portfolio" of stocks and bonds, in which each small investor has a *pro rata* share. Formally, the investment trust ment of the bank performs for the men of substance. In reality the functions are opposite. The trust company is itself controlled by and is the genuine agent of its large customers. The investment trust is controlled by a group of financiers interested mainly in profiting themselves from their small investors.

During the late 1920's investment trusts were organized as a means of inveigling thousands of hopefuls into the securities markets. The investors were promised that their funds would be protected by the guidance of the "experts." These kept for themselves substantial blocks of promoters' shares, and exacted management fees for the operations. A number of these trusts were virtually annihilated during the great crash.

During the past decade, these investment trusts have been revived and expanded in a new form, presumed to protect the buyer from the extreme dangers of the old "closed" type. In these new "open-end" trusts, or "mutual funds," the buyer can at anytime sell out at the market value of his share of the stocks held by the trust. The catch is the price the investor pays for the "service." In the typical "open-end" or "mutual" fund, the investor of less than $25,000 (the great majority are in this group) pays a commission of 8% on buying his shares, equivalent to two years of average dividends. Additional management fees consume more than one-tenth of the dividend income each year.

As during the 1920's, the managers of these new types of trusts have been singularly unastute in advancing the interests of their customers. Taking 1939 as 100, the Henry Ansbacher Long index of mutual stock fund values at the end of 1955 was 283.3, as compared with 361.1 for the Standard and Poor's 90 stock price index. In other words, the investor could have done much better by simply buying the shares used in the standard "averages," and paying much lower commission fees to regular brokers. Only two of the twenty-one funds included in the index did better than the "averages."

While of dubious value to investors, these funds are of considerable use to their promoters, not only as sources of operating profits, but also as a lever for influencing the affairs of corporations whose shares are purchased.

Massachusetts Investors Trust is the largest single outfit, with assets of close to a billion dollars. It is buttressed by five smaller trusts under common management. This grouping has significant holdings in almost all of the decisive industrial corporations, which can be performs the same function for the "little fellow" as the trust depart-coordinated with the holdings of the large Boston insurance companies and personal trust funds.

Tapping the midwestern market is the rapidly-growing Investors Diversified Services group of Minneapolis. By the end of 1955 this group controlled over a billion and a half dollars worth of investible funds, approximately as much as the Boston group. Robert R. Young of Cleveland and his associates* control these Minneapolis companies, and coordinate their activities with those of Young's holding company, the Alleghany Corp. They are most active in railroads, smaller utilities, banks and real estate.

Seven investment trusts and holding companies disposing of about a billion dollars, are controlled by or affiliated with Morgan banks, and have large holdings in mining companies and utilities in which the Morgans have a major interest. The First National City Bank controls Fundamental Investors, and influences Dillon, Read's U. S. & Foreign Securities, which is important in oil. The Seligman and Lehman interests each control important groups of investment trusts. The du Ponts utilize the $200-million United Funds, Inc. of Kansas City as a buttress for their positions in industrial companies outside of their main core of investments.

FOUNDATIONS AND COLLEGE ENDOWMENT FUNDS

During the past decades of high income taxes, the overprivileged have placed billions of dollars in foundations, as a means of preserving their estates tax-free, while retaining control over the funds. There are now over 4,000 foundations in the United States, with total assets of well over $10 billion, including stockholdings of over $5 billion. However, a few foundations dominate the field. By far the largest is the Ford Foundation. Until the end of 1955 its $3 billion of assets consisted almost wholly of Ford Motor Corp. shares. Following the sale of over 20% of these shares, it will doubtless become an influential factor in the affairs of other corporations as well. Besides the

* During 1956 Young turned over formal control to one of these associates, Texas oilman Clint Murchison. The real significance of this maneuver is not yet clear. In the New York Central fight (Chapter 6), Murchison was made a large stockholder, but as later revealed, was merely a stalking-horse for Young.

Ford family, the Chase National Bank and associated interests are most prominent in the affairs of this foundation.

The half-billion-dollar Rockefeller Foundation plays a significant role in holding large blocks of Standard Oil and allied stocks for the Rockefeller interests. The quarter-billion Carnegie Foundation, in which Morgan interests predominate, has been less aggressive in the expansion of its stock holdings.

Financial circles have become quite brazen in discussing the profit and control advantages of establishing a foundation. Paine, Webber, Jackson & Curtis asks its clients: "Have you considered the possible business and tax advantages of establishing a personal charitable foundation? Is there a danger that your family may lose control of your business in case of your death because of the necessity of selling stock in your business to pay estate taxes? Are you aware of the income and estate tax savings you may achieve by making contributions to a personal charitable foundation? Do you realize how little it need cost you to make such gifts?"

The investment banking house's pamphlet shows how one's estate tax can be cut 60%, and control of his corporation retained by use of a charitable foundation. In another example, a corporation president increases his after-tax income from $43,000 to $79,000 and in the course of 15 years saves $892,000 in estate and income taxes by judicious use of a foundation.

The "charitable" aspect can be wholly incidental, with a relative or agent placed in charge of this newly developed form of business instrument: "Since the charitable foundation may remain under the direction of the creator either directly or indirectly, its assets may be used to complement the general financial activities of the creator while still achieving specific desirable charitable goals." The "creator" may borrow from the fund, engage in sale and lease-back transactions, and use it for a variety of purposes ranging from tax deduction to battles for corporate control.[29]

The whole device becomes a "charity" for the donors; paid for by the John Does who cannot afford foundations.

College endowment funds, controlled by financier-trustees, are also elements in the network of corporate control. The largest is the $400-million fund of Harvard University, a leading shareholder in a number of corporations. Morgan and Boston interests are prominent in its affairs.

In addition to these standard types of institutions, there are a variety

of forms of private and family holding companies. Almost every plutocratic family active in financial affairs maintains one or more of these companies. Through them, financial operations can be screened and taxes reduced. Most famous is the Christiana Corp., two-billion-dollar holding corporation of the du Pont family. Other important family holding company companies include Rockefeller Brothers Inc., and J. H. Whitney & Co., which belongs to John Hay Whitney, heir to Standard Oil and traction system millions.

LAW FIRMS

Cleveland financier Cyrus Eaton said at a Congressional inquiry: "New York has half a dozen law firms manned by people of great intelligence and great energy, and they like to practice before governmental bodies, and they like to represent big corporations, and they like to supervise the financing of these great corporations; and there is the club that is the real one. Those tremendous law firms . . . are big business in the biggest possible way."[30]

The giant law firms (not all in New York) are involved in all new financing, in tax manipulations, in struggles for corporate control. They are primary links of the economic royalists with political power. Besides handling the manifold relations of the corporations with government agencies, the lawyers are particularly active in the affairs of the major political parties, serving directly as representatives of the ruling group in the government, forming a majority in the legislatures and holding all of the judgeships, besides many key executive posts.

The top lawyers are far more than hired hands. They are rich businessmen, with places on the boards of major industrial corporations, and especially banks and trust companies. Their income from fees is very large, probably larger in total than the commissions of the major investment banking houses. In addition, they are large stockholders and manipulators in their own right. By and large they come from wealthy families.

The most powerful of all Wall Street law firms is that formerly headed by Eisenhower's Secretary of State, John Foster Dulles. That is the firm of Sullivan & Cromwell, whose ramified financial and political connections are discussed in Chapter XVI. At least a half dozen law firms represent the varied Morgan interests, and a similar number are affiliated with the Rockefellers and other Standard Oil

families with which Sullivan & Cromwell also has close connections. (Appendix 3 lists some of the principal corporation law firms and their main clients.)

Each of the great banks, trust companies, insurance companies, and investment banking houses* wields enormous power. They complement one another functionally, so that their coordinated might is truly impressive. One would be hard put to say which type of institution is the *most* important. If a choice had to be made, it would probably be the leading banking institutions, which combine under one roof the commercial banking and trust company functions.

The weavers of the web are the key groups of men in ultimate control of the financial-industrial empires. Many are identified later.

* Besides the types of institutions discussed in this chapter, there are others of significance. These include stock market brokerage houses, "mutual" savings banks, savings and loan companies, sales finance companies, factoring companies, small loan companies, and large accounting firms.

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DICTIONNAIRE DES GROUPES INDUSTRIELS ET FINANCIERS EN FRANCE

SEUIL

PUK

PECHINEY-UGINE-KUHLMANN

— Aluminium, cuivre, chimie, aciers spéciaux, fabrication du combustible nucléaire.
— Premier consommateur d'électricité.
— Le plus réputé des pollueurs de France.
— Nationalisation prévue par le Programme commun.

	millions F
Capitaux propres	6 263
Chiffre d'affaires	18 741
- dont à l'exportation	*4 128*
- dont filiales étrangères	*4 019*
Valeur ajoutée	
Cash flow	399
Nombre de sociétés	241
- dont en France	*191*
- dont à l'étranger	*50*
Nombre de salariés	102 700
- dont en France	*82 600*
- dont à l'étranger	*20 100*

1. Aboutissement actuel d'une longue histoire marquée, à partir des productions de la soude, de l'aluminium, des phosphates..., par la logique contradictoire du capital : concurrence et ententes, accumulation et crises, luttes acharnées et concentration.

— La société Kuhlmann, financée en 1825 par des industriels du textile et du verre du Nord, produit de la soude artificielle, diversifie sa production dans la chimie puis dans les engrais. Entre les deux guerres, Kuhlmann absorbe ou rachète des sociétés chimiques et s'installe à l'étranger.

— Fondée en 1855 à Salindres, à proximité des matières premières, Pechiney aussi fabrique de la soude et diversifie sa production. L'aluminium, produit dès 1860 par voie chimique, prend une place importante à partir de 1897. En 1914, Pechiney dépasse largement les autres producteurs par sa taille, sa surface financière, sa large diversification dans la chimie, commence à racheter ses concurrents; en 1921, principal producteur français d'aluminium, Pechiney établit définitivement son monopole absolu sur le marché français, dans le cadre de son association étroite avec Ugine et développe sa stratégie d'intégration en produisant sa propre énergie électrique.

— Créée en 1889 par deux ingénieurs de Pechiney pour fabriquer des chlorates par voie électrolytique, la Société d'Électrochimie (Sec) produit aussi de l'aluminium. Elle absorbe en 1921 les aciéries P. Girod à Ugine, base de sa position dominante dans les aciers spéciaux.

Après l'absorption de Cegédur et de Tréfimétaux par PECHINEY (1967) et l'échec sur le plan industriel de la fusion entre UGINE et KUHLMANN (réalisée en 1965), le gouvernement de la Ve République et les groupes bancaires (PARIBAS, LAZARD) veillèrent à ce que se constitue, à côté de Rhône-Poulenc un grand groupe de l'électrochimie et des métaux non ferreux : ce fut la fusion entre PECHINEY et UGINE-KUHLMANN, permettant la constitution d'un groupe aux capitaux concentrés, renforcé dans l'aluminium, diversifié dans les aciers spéciaux, le nucléaire bénéficiant de la chimie intermédiaire et des produits minéraux de base.

2. PARIBAS 1 %, SUEZ 0,58 %, CGE 1,56 %... Le capital de PUK est largement réparti dans le public... Pourtant ses alliances avec d'autres groupes sont nombreuses : rapports entre producteurs réunis d'où cartel de l'aluminium; 18 filiales avec les grands de la chimie et de la pétrochimie (RHÔNE-POULENC, PRICEL, CDF, EMC, AIR-LIQUIDE, CFP et ELF-AQUITAINE, mais aussi *Basf, Dunl*...

Pechiney-Ugine-Kuhlmann, société mère; capital 2 516 millions F; 398 salariés; 23 rue Balzac 75008 Paris; tél. 227.64.10.

3. L'organigramme ne présente pas toutes les filiales de distribution à l'étranger, mais donne idée des moyens mis en œuvre pour la « diffusion de la pensée ». Pour 1975, le chiffre d'affaires effectué se répartit en : 23 % pour les livres (livre de poche, guides bleus, édition du Masque, éditions Fayard, Grasset, Stock, J.-J. Pauvert...); 22 % pour la distribution dans les gares (essentiellement par la Cofec, mais sans tenir compte des 650 millions de CA des Nmpp en 1975); 14 % pour la distribution des livres à l'étranger; 16 % pour la presse (*France-Soir, le Journal du dimanche, France-Dimanche, le Point, Confidences, Mickey, Babar, Connaissance des Arts, Historia*... auxquels s'ajoutent *Télé 7 Jours, Elle, le Nouvel Économiste, Moto-Journal*); et enfin 25 % pour les autres activités (imprimerie Brodard et Taupin, Presse Routage...) et sociétés d'Audiovisuel (Sonopresse...).

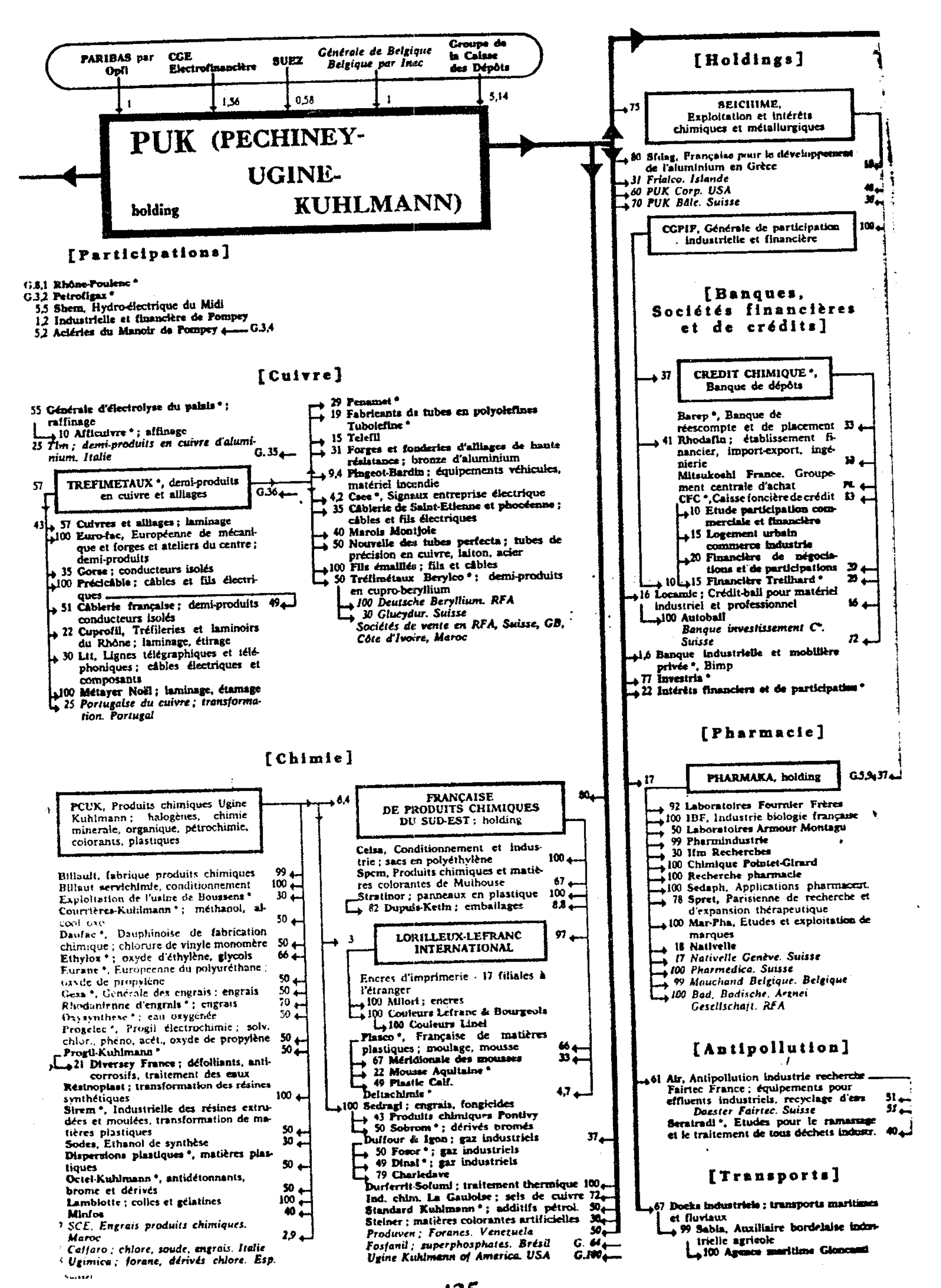
4. L'imprimerie française est en crise, et la presse française reste un enjeu que les forces politiques et l'oligarchie financière se disputent; les concurrents s'appellent HACHETTE, PARIBAS, Amaury, Hersant, Boussac, Prouvost...

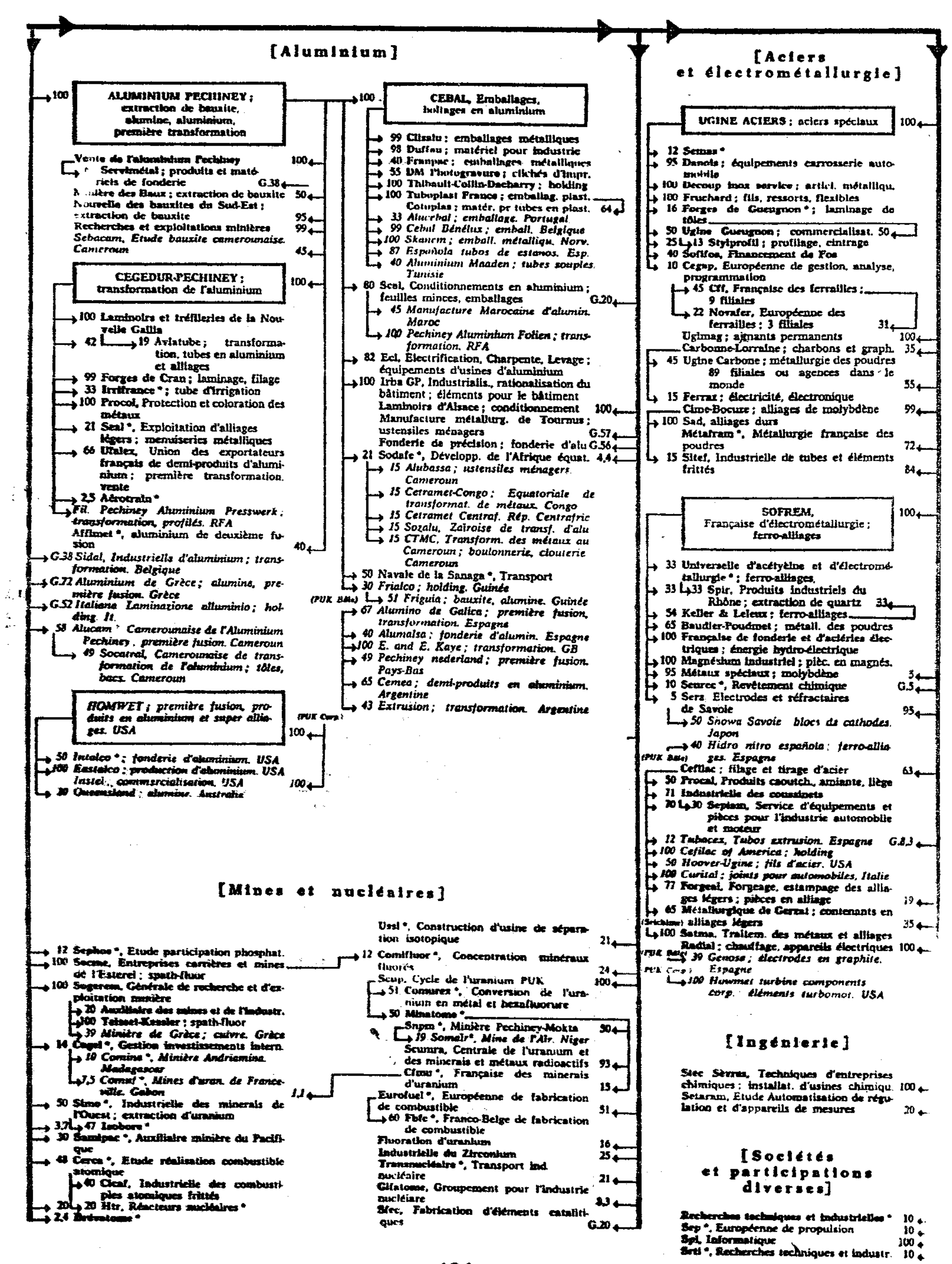
En 1975. Hersant rachète *le Figaro* à Prouvost, Amaury « change » de salariés au *Parisien libéré*; HACHETTE vend *Réalités, Connaissance des Arts, Preuves, Visions*... En 1976, HACHETTE reprend *Paris-Match* à Prouvost pour le recéder à Hersant (associé à Winkler); HACHETTE rachète encore à Prouvost les revues *Parents* et *Télé 7 Jours*. Notons que dans l'audiovisuel, HACHETTE s'est associé à l'ORTF dans Vidéogrammes de France; d'un autre côté HACHETTE est copropriétaire de RTL avec DASSAULT, SCHLUMBERGER, PARIBAS et la société luxembourgeoise Audiofina.

Dans l'imprimerie, HACHETTE récupère les restes de la Néogravure (50 % du capital depuis le rachat de *Télé 7 jours*).

5. Le groupe HACHETTE a une place de choix dans la diffusion de la « pensée française » partout à travers le monde; depuis le monopole des manuels scolaires qui enseignaient « nos ancêtres les Gaulois » aux petits Malgaches ou aux Algériens, jusqu'aux éditions de luxe pour pays capitalistes développés : Amérique du Nord et Europe. Alors que l'internationalisation du groupe date de la colonisation, le mouvement actuel est à la sauvegarde des positions acquises plutôt qu'à l'expansion avec quelques « délestages » importants (*Elle* en Belgique).

A LIRE : Gabriel ENKIRI, *Hachette la pieuvre*, Éd Git-le-Cœur 1972


PARIBAS par Opfi
CGE Electrofinancière
SUEZ
Générale de Belgique Belgique par Inec
Groupe de la Caisse des Dépôts
1
1,56
0,58
1
5,14
PUK (PECHINEY-UGINE-KUHLMANN) holding
[Participations]
G.8,1 Rhône-Poulenc *
G.3,2 Petrofigaz *
5,5 Shem, Hydro-électrique du Midi
1,2 Industrielle et financière de Pompey
5,2 Aciéries du Manoir de Pompey ← G.3,4
[Cuivre]
55 Générale d'électrolyse du palais *; raffinage
10 Afficuivre *; affinage
25 Tlm; demi-produits en cuivre d'aluminium. Italie
G.35
57 TREFIMETAUX *, demi-produits en cuivre et alliages
G.36
43
57 Cuivres et alliages; laminage
100 Euro-fac, Européenne de mécanique et forges et ateliers du centre; demi-produits
35 Gorse; conducteurs isolés
100 Précicâble; câbles et fils électriques
51 Câblerie française; demi-produits conducteurs isolés 49
22 Cuprofil, Tréfileries et laminoirs du Rhône; laminage, étirage
30 Ltt, Lignes télégraphiques et téléphoniques; câbles électriques et composants
100 Métayer Noël; laminage, étamage
25 Portugaise du cuivre; transformation. Portugal
29 Penamet *
19 Fabricants de tubes en polyolefines Tuboleflne *
15 Telefil
31 Forges et fonderies d'alliages de haute résistance; bronze d'aluminium
9,4 Pingeot-Bardin; équipements véhicules, matériel incendie
4,2 Caee *, Signaux entreprise électrique
35 Câblerie de Saint-Etienne et phocéenne; câbles et fils électriques
40 Marois Montjoie
50 Nouvelle des tubes perfecta; tubes de précision en cuivre, laiton, acier
100 Fils émaillés; fils et câbles
50 Tréfimétaux Berylco *; demi-produits en cupro-beryllium
100 Deutsche Beryllium. RFA
30 Glucydur. Suisse
Sociétés de vente en RFA, Suisse, GB, Côte d'Ivoire, Maroc
[Chimie]
PCUK, Produits chimiques Ugine Kuhlmann; halogènes, chimie minerale, organique, pétrochimie, colorants, plastiques
6,4
Billault, fabrique produits chimiques 99
Billaut servichimie, conditionnement 100
Exploitation de l'usine de Boussens * 30
Courrières-Kuhlmann *; méthanol, alcool oxo 50
Daufac *, Dauphinoise de fabrication chimique; chlorure de vinyle monomère 50
Ethylox *; oxyde d'éthylène, glycols 66
Furane *, Européenne du polyuréthane; oxyde de propylène 50
Gesa *, Générale des engrais; engrais 50
Rhodanienne d'engrais *; engrais 70
Oxysynthese *; eau oxygénée 50
Progelec *, Progil électrochimie; solv. chlor., phéno, acét., oxyde de propylène 50
Progil-Kuhlmann * 50
21 Diversey France; défoliants, anti-corrosifs, traitement des eaux
Résinoplast; transformation des résines synthétiques 100
Sirem *, Industrielle des résines extrudées et moulées, transformation de matières plastiques 50
Sodes, Ethanol de synthèse 30
Dispersions plastiques *, matières plastiques 50
Octel-Kuhlmann *, antidétonnants, brome et dérivés 50
Lamblotte; colles et gélatines 100
Minfos 40
SCE, Engrais produits chimiques. Maroc 2,9
Caffaro; chlore, soude, engrais. Italie
Ugimica; forane, dérivés chlore. Esp.
FRANÇAISE DE PRODUITS CHIMIQUES DU SUD-EST; holding
80
Celsa, Conditionnement et industrie; sacs en polyéthylène 100
Spcm, Produits chimiques et matières colorantes de Mulhouse 67
Stratinor; panneaux en plastique 100
82 Dupuis-Ketin; emballages 8,8
3
LORILLEUX-LEFRANC INTERNATIONAL 97
Encres d'imprimerie - 17 filiales à l'étranger
100 Millori; encres
100 Couleurs Lefranc & Bourgeois
100 Couleurs Linel
Plasco *, Française de matières plastiques; moulage, mousse 66
67 Méridionale des mousses 33
22 Mousse Aquitaine *
49 Plastic Calf.
Deltachimie * 4,7
100 Sedragi; engrais, fongicides
43 Produits chimiques Pontivy
50 Sobrom *; dérivés bromés
Duffour & Igon; gaz industriels 37
50 Fosor *; gaz industriels
49 Dinal *; gaz industriels
79 Charledave
Durferrit-Sofumi; traitement thermique 100
Ind. chim. La Gauloise; sels de cuivre 72
Standard Kuhlmann *; additifs pétrol. 50
Steiner; matières colorantes artificielles 30
Produven; Foranes. Venezuela 50
Fosfanil; superphosphates. Brésil G. 64
Ugine Kuhlmann of America. USA G.100
[Holdings]
75 SEICHIME, Exploitation et intérêts chimiques et métallurgiques
80 Sfdag, Française pour le développement de l'aluminium en Grèce
31 Frialco. Islande
60 PUK Corp. USA 40
70 PUK Bâle. Suisse 30
CGPIF, Générale de participation industrielle et financière 100
[Banques, Sociétés financières et de crédits]
37 CREDIT CHIMIQUE *, Banque de dépôts
Barep *, Banque de réescompte et de placement 33
41 Rhodafin; établissement financier, import-export, ingénierie
Mitsukoshi France. Groupement centrale d'achat
CFC *, Caisse foncière de crédit
10 Etude participation commerciale et financière
15 Logement urbain commerce industrie
20 Financière de négociations et de participations
10 15 Financière Treilhard *
16 Locamic; Crédit-bail pour matériel industriel et professionnel 16
100 Autobail
Banque investissement C°. Suisse 72
1,6 Banque industrielle et mobilière privée *, Bimp
77 Investria *
22 Intérêts financiers et de participation *
[Pharmacie]
17 PHARMAKA, holding G.5,9 37
92 Laboratoires Fournier Frères
100 IDF, Industrie biologie française
50 Laboratoires Armour Montagu
99 Pharmindustrie
30 Ifm Recherches
100 Chimique Pointet-Girard
100 Recherche pharmacie
100 Sedaph, Applications pharmaceut.
78 Spret, Parisienne de recherche et d'expansion thérapeutique
100 Mar-Pha, Etudes et exploitation de marques
18 Nativelle
17 Nativelle Genève. Suisse
100 Pharmedica. Suisse
99 Mauchand Belgique. Belgique
100 Bad, Badische, Arznei Gesellschaft. RFA
[Antipollution]
61 Air, Antipollution industrie recherche
Fairtec France; équipements pour effluents industriels, recyclage d'eau 51
Daester Fairtec. Suisse 51
Seratradi *, Etudes pour le ramassage et le traitement de tous déchets industr. 40
[Transports]
67 Docks industriels; transports maritimes et fluviaux
99 Sabia, Auxiliaire bordelaise industrielle agricole
100 Agence maritime Gloncaud



[Aluminium]
100 ALUMINIUM PECHINEY ; extraction de bauxite, alumine, aluminium, première transformation
Vente de l'aluminium Pechiney 100
Servimétal ; produits et matériels de fonderie G.38
Minière des Baux ; extraction de bauxite 50
Nouvelle des bauxites du Sud-Est ; extraction de bauxite 95
Recherches et exploitations minières 99
Sebacam, Etude bauxite camerounaise. Cameroun 45
CEGEDUR-PECHINEY ; transformation de l'aluminium 100
100 Laminoirs et tréfileries de la Nouvelle Gallia
42 → 19 Aviatube ; transformation, tubes en aluminium et alliages
99 Forges de Cran ; laminage, filage
33 Irrifrance * ; tube d'irrigation
100 Procol, Protection et coloration des métaux
21 Seal *, Exploitation d'alliages légers ; menuiseries métalliques
66 Ufalex, Union des exportateurs français de demi-produits d'aluminium ; première transformation, vente
2,5 Aérotrain *
Fil. Pechiney Aluminium Presswerk ; transformation, profilés. RFA
Affimet *, aluminium de deuxième fusion 40
G.38 Sidal, Industriells d'aluminium ; transformation. Belgique
G.72 Aluminium de Grèce ; alumine, première fusion. Grèce
G.52 Italiana Laminazione alluminio ; holding. It.
58 Alucam * Camerounaise de l'Aluminium Pechiney, première fusion. Cameroun
49 Socatral, Camerounaise de transformation de l'aluminium ; tôles, bacs. Cameroun
HOWMET ; première fusion, produits en aluminium et super alliages. USA (PUK Corp.) 100
50 Intalco * ; fonderie d'aluminium. USA
100 Eastalco ; production d'aluminium. USA
Instel., commercialisation. USA 100
30 Queensland ; alumine. Australie
100 CEBAL, Emballages, bollages en aluminium
99 Cisalu ; emballages métalliques
98 Duffau ; matériel pour industrie
40 Franpac ; emballages métalliques
55 DM Photogravure ; clichés d'impr.
100 Thibault-Collin-Decharry ; holding
100 Tuboplast France ; emballag. plast.
Cotuplas ; matér. pr tubes en plast. 64
33 Alucrbal ; emballage. Portugal
99 Cebal Bénélux ; emball. Belgique
100 Skanem ; emball. métalliqu. Norv.
87 Española tubos de estanos. Esp.
40 Aluminium Maaden ; tubes souples. Tunisie
80 Scal, Conditionnements en aluminium ; feuilles minces, emballages G.20
45 Manufacture Marocaine d'alumin. Maroc
100 Pechiney Aluminium Folien ; transformation. RFA
82 Ecl, Electrification, Charpente, Levage ; équipements d'usines d'aluminium
100 Irba GP, Industrialis., rationalisation du bâtiment ; éléments pour le bâtiment
Laminoirs d'Alsace ; conditionnement 100
Manufacture métallurg. de Tournus ; ustensiles ménagers G.57
Fonderie de précision ; fonderie d'alu G.56
21 Sodafe *, Développ. de l'Afrique équat. 4,4
15 Alubassa ; ustensiles ménagers. Cameroun
15 Cetramet-Congo ; Equatoriale de transformat. de métaux. Congo
15 Cetramet Centraf. Rép. Centrafric
15 Sozalu, Zaïroise de transf. d'alu
15 CTMC, Transform. des métaux au Cameroun ; boulonnerie, clouterie Cameroun
50 Navale de la Sanaga *, Transport
30 Frialco ; holding. Guinée
(PUK SA) 51 Friguia ; bauxite, alumine. Guinée
67 Alumino de Galica ; première fusion, transformation. Espagne
40 Alumalsa ; fonderie d'alumin. Espagne
100 E. and E. Kaye ; transformation. GB
49 Pechiney nederland ; première fusion. Pays-Bas
65 Cemea ; demi-produits en aluminium. Argentine
43 Extrusion ; transformation. Argentine
[Aciers et électrométallurgie]
UGINE ACIERS ; aciers spéciaux 100
12 Semas *
95 Danois ; équipements carrosserie automobile
100 Decoup inox service ; articl. métalliqu.
100 Fruchard ; fils, ressorts, flexibles
16 Forges de Gueugnon * ; laminage de tôles
50 Ugine Gueugnon ; commercialisat. 50
25 → 13 Stylprofil ; profilage, cintrage
40 Sofifos, Financement de Fos
10 Cegap, Européenne de gestion, analyse, programmation
45 Cff, Française des ferrailles ; 9 filiales
22 Novafer, Européenne des ferrailles ; 3 filiales 31
Ugimag ; aimants permanents 100
Carbone-Lorraine ; charbons et graph. 35
45 Ugine Carbone ; métallurgie des poudres 89 filiales ou agences dans le monde 55
15 Ferraz ; électricité, électronique
Cime-Bocuze ; alliages de molybdène 99
100 Sad, alliages durs
Métafram *, Métallurgie française des poudres 72
15 Sitef, Industrielle de tubes et éléments frittés 84
SOFREM, Française d'électrométallurgie ; ferro-alliages 100
33 Universelle d'acétylène et d'électrométallurgie * ; ferro-alliages.
33 → 33 Spir, Produits industriels du Rhône ; extraction de quartz 33
54 Keller & Leleux ; ferro-alliages
65 Baudier-Poudmet ; métall. des poudres
100 Française de fonderie et d'aciéries électriques ; énergie hydro-électrique
100 Magnésium industriel ; pièc. en magnés.
95 Métaux spéciaux ; molybdène 5
10 Seurec *, Revêtement chimique G.5
5 Sers, Electrodes et réfractaires de Savoie 95
50 Showa Savoie blocs de cathodes. Japon
(PUK SA) 40 Hidro nitro española ; ferro-alliages. Espagne
Cefilac ; filage et tirage d'acier 63
50 Procal, Produits caoutch., amiante, liège
71 Industrielle des coussinets
70 → 30 Sepiam, Service d'équipements et pièces pour l'industrie automobile et moteur
12 Tubacex, Tubos extrusion. Espagne G.8,3
100 Cefilac of America ; holding
50 Hoover-Ugine ; fils d'acier. USA
100 Curital ; joints pour automobiles, Italie
77 Forgeal, Forgeage, estampage des alliages légers ; pièces en alliage 19
65 Métallurgique de Gerzat ; contenants en alliages légers (Stichting) 35
100 Satma, Traitem. des métaux et alliages
Radial ; chauffage, appareils électriques 100
(PUK SA) 39 Genosa ; électrodes en graphite. Espagne
(PUK Corp.) 100 Howmet turbine components corp. éléments turbomot. USA
[Mines et nucléaires]
12 Sephos *, Etude participation phosphat.
100 Secme, Entreprises carrières et mines de l'Esterel ; spath-fluor
100 Segerem, Générale de recherche et d'exploitation minière
20 Auxiliaire des mines et de l'industr.
100 Tetnet-Kessler ; spath-fluor
39 Minière de Grèce ; cuivre. Grèce
14 Cogei *, Gestion investissements intern.
10 Comina *, Minière Andriamina. Madagascar
7,5 Comuf *, Mines d'uran. de Franceville. Gabon
50 Simo *, Industrielle des minerais de l'Ouest ; extraction d'uranium
3,7 → 47 Isobore *
30 Samipac *, Auxiliaire minière du Pacifique
48 Cerca *, Etude réalisation combustible atomique
40 Cicaf, Industrielle des combustibles atomiques frittés
20 → 20 Htr, Réacteurs nucléaires *
2,4 Brévatome *
Ussi *, Construction d'usine de séparation isotopique 21
12 Comifluor *, Concentration minéraux fluorés 24
Scup, Cycle de l'uranium PUK 100
51 Comurex *, Conversion de l'uranium en métal et hexafluorure
50 Minatome *
Snpm *, Minière Pechiney-Mokta 50
19 Somair *, Mine de l'Aïr. Niger
Scumra, Centrale de l'uranium et des minerais et métaux radioactifs 93
Cfmu *, Française des minerais d'uranium 1,1 15
Eurofuel *, Européenne de fabrication de combustible 51
60 Fbfc *, Franco-Belge de fabrication de combustible
Fluoration d'uranium 16
Industrielle du Zirconium 25
Transnucléaire *, Transport ind. nucléaire 21
Gifatome, Groupement pour l'industrie nucléaire 8,3
Sfec, Fabrication d'éléments catalitiques G.20
[Ingénierie]
Stec Sèvres, Techniques d'entreprises chimiques ; installat. d'usines chimiqu. 100
Setaram, Etude Automatisation de régulation et d'appareils de mesures 20
[Sociétés et participations diverses]
Recherches techniques et industrielles * 10
Sep *, Européenne de propulsion 10
Spi, Informatique 100
Srti *, Recherches techniques et industr. 10

'Great Lakes Chemicals, Bp); enfin dans le nucléaire, PUK après avoir surtout été associé à ROTH-SCHILD l'est aujourd'hui à la CFP. Au sein de la direction du groupe on peut mettre en évidence des liens familiaux : parenté de l'ex-PDG, P. Jouven et du PDG de Pcuk, M. Gutmann (marié à une nièce du général de Gaulle); alliance de Ph. Thomas, actuel PDG de PUK aux Cartier Bresson, vieille famille du textile dont les capitaux ont financé F. Kuhlmann et présence d'un descendant direct de F. Kuhlmann...

3. La holding détient les sociétés chefs de file qui coiffent les branches dans lesquelles le groupe exerce une position dominante (Aluminium Pechiney pour l'aluminium, Ugine Aciers pour l'acier, Pcuk pour la chimie, Tréfimétaux pour le cuivre) ainsi que *Puk Corp (Usa)* et *Puk Bâle (Suisse)*, holdings dont dépendent les filiales à l'étranger. Pharmuka est le holding des activités pharmaceutiques; Seichime, sous holding en France, a été absorbé par PUK en 1976.

4. Le groupe fondé sur la métallurgie (aluminium 36 % du chiffre d'affaire, cuivre 15 %, aciers spéciaux 25 %, électrométallurgie et électrochimie 15 %), et la chimie dont la fusion a permis d'intégrer les différentes filières, s'engage dans des activités d'avenir : combustible pour centrales nucléaires, matériaux pour la construction des centrales elles-mêmes, pour les industries des moyens de transport, construction d'usines (d'aluminium, de dessalement de l'eau de mer...) et... techniques antipollution.

5. Pechiney s'est largement multinationalisé dans le secteur de l'aluminium depuis les années 1960 : Australie, USA, Grèce, Espagne, Hollande. Le potentiel productif d'aluminium qui était en 1959 pour 80 % installé en France, n'y est plus que pour 45 % en 1975.
Dans la structuration du groupe à l'étranger, les deux holdings *Puk Corp Usa* et *Puk Bâle Suisse* ont un rôle charnière qui peut permettre de faciliter une éventuelle autonomisation des implantations du groupe situées aux USA, en Argentine, en Espagne, en Hollande.

6. En France, le Groupe est principalement implanté dans le Nord et l'Est pour la chimie, le Sud-Est et le Sud-Ouest pour l'électrométallurgie et l'électrochimie de Pechiney et d'Ugine.

7. La politique paternaliste de Pechiney s'étend maintenant à tout le groupe (journaux maison, écrit maison, activités sportives, de loisir, culturelles); elle se double d'une pression antisyndicale constante : surveillance et mise à l'écart des militants, politique de charme à l'égard des cadres et de division à l'égard des travailleurs (intérimaires, travail en régie), refus de mettre en place un comité central de groupe. Mais surtout PUK se sert à l'égard des travailleurs de son implantation multinationale. Il réduit le potentiel productif en France et quand les travailleurs entrent en lutte (Noguères : 1973, Auzat : 1976 ou en Maurienne années par années), la direction effectue son chantage : « si vous luttez, nous fermons l'usine : nous avons de meilleures possibilités de production à l'étranger »; même chantage exercé à l'égard des paysans et des habitants qui, dans les régions (Maurienne, Haute-Durance, Lannemezan) luttent contre la pollution permet parfois de dresser les ouvriers de l'usine contre les paysans alors que ces deux types de luttes s'insèrent dans le même combat : celui contre la logique du profit capitaliste.

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RP-PRICEL

RHÔNE-POULENC PRICEL

— Groupe ou se jouent les atouts et où se nouent les alliances de la famille GILLET.
— Rhône-Poulenc : neuvième groupe mondial de la chimie, un grand des textiles artificiels.
— Pricel : un autre panier pour y mettre d'autres œufs (impression, textile, papier, plus une banque d'affaires).
— Les réorganisations entreprises depuis 1970 se sont traduites par d'importants licenciements collectifs à l'occasion de la « crise ».
— Nationalisation prévue par le Programme commun pour Rhône-Poulenc.

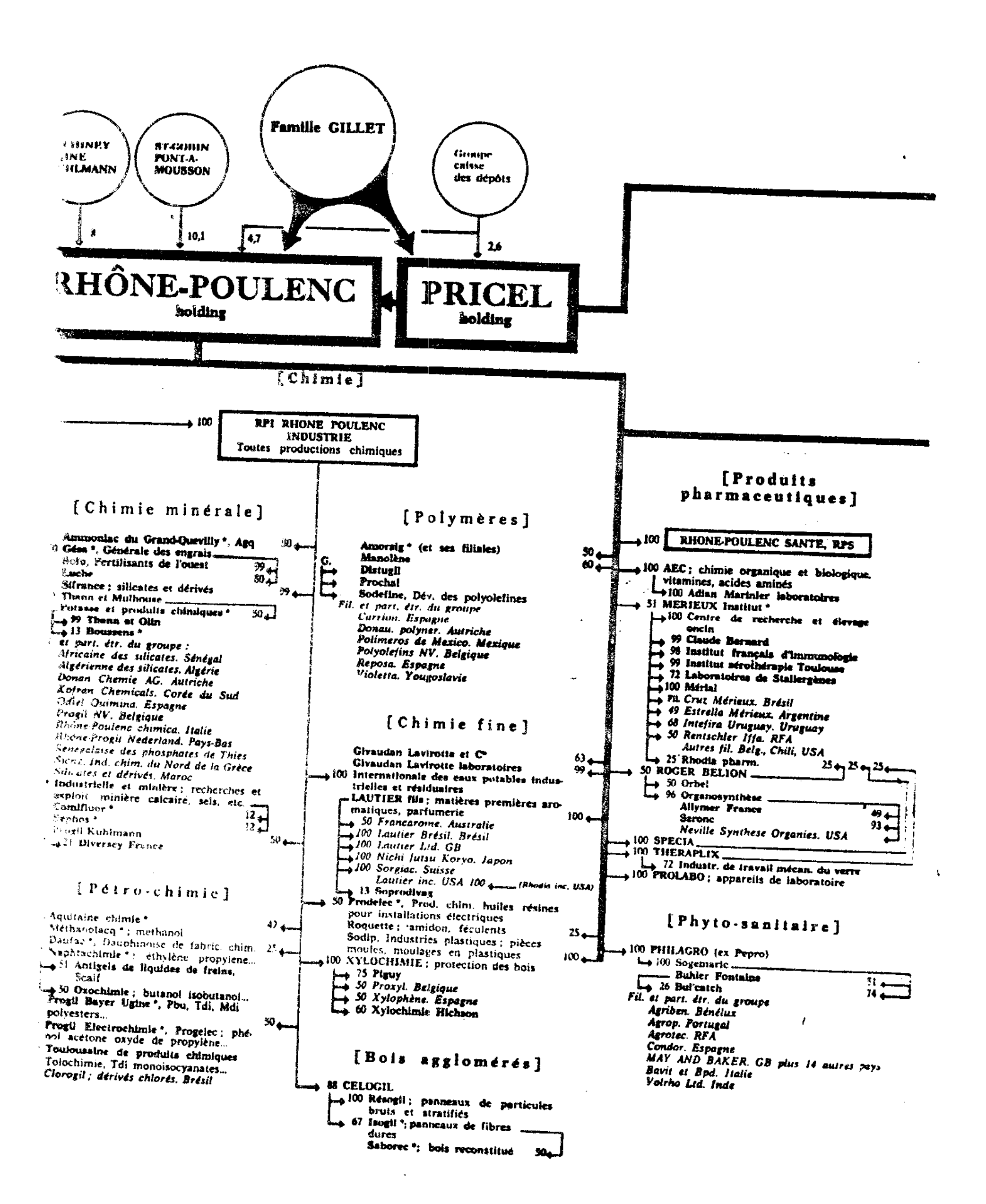
	millions F		
	Rhône-Poulenc consolidé	Pricel (seul)	Ensemble
Capitaux propres	8 940	490	
Chiffre d'affaires	17 875		
- dont à l'exportation	29 %		
- dont filiales étrangères	28 %		
Valeur ajoutée			
Cash flow			
Nombre de sociétés	155	43	198
- dont en France	*94*	*33*	*127*
- dont à l'étranger	*61*	*10*	*71*
Nombre de salariés	115 800		
- dont en France	*81 400*		
dont à l'étranger	*34 400*		

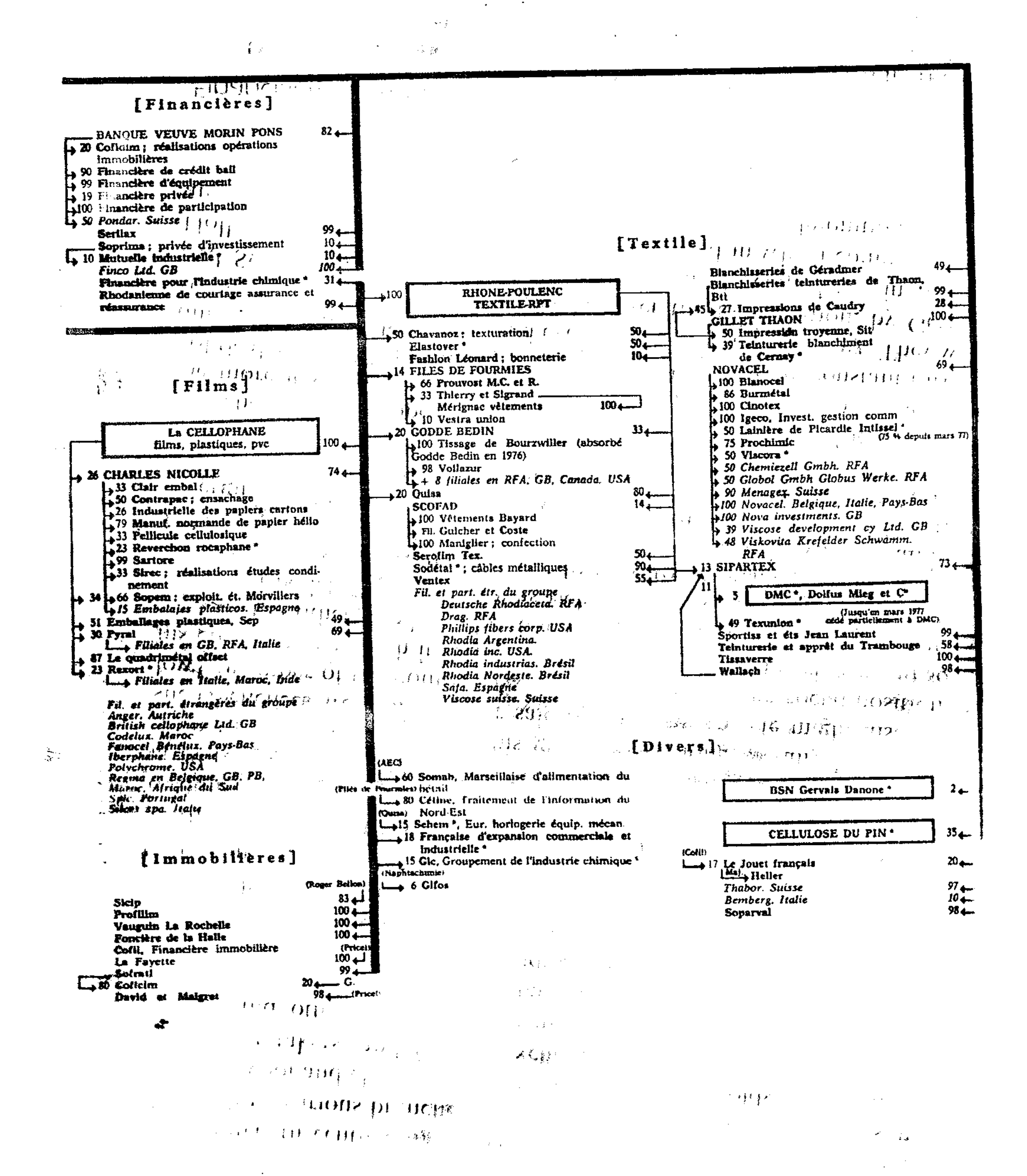
1. A partir d'une entreprise de teinturerie créée à Lyon au début du XIXe siècle la famille Gillet a génération après génération, élargi son champ d'action; à la fin du XIXe elle développe ses activités dans une nouvelle direction, les textiles artificiels, secteur où une autre famille lyonnaise, les Carnot développe la production de viscose. Ces deux familles choisissent de s'entendre : elles créent en 1911 le Comptoir des Textiles Artificiels-CTA, qui assure la commercialisation de leurs productions en 1927, les Gillet entrent dans la Française de Viscose créée par les Carnot en 1903. Parallèlement les Gillet seuls développent d'autres activités : ils créent avec les Motte, industriels textiles du Nord la société Progil (produits Gillet) qui utilisera des brevets allemands de la chimie et des colorants reçus au titre de dommages de guerre au lendemain de la Première Guerre mondiale; ils entrent dans Blanchisserie et Teinturerie de Thaon en 1935 et créent Gillet-Thaon.

En 1922, le CTA (familles Gillet et Carnot) et une autre entreprise de la région lyonnaise, les Usines du Rhône créent ensemble Rhodiaceta qui, contre l'autorisation d'exploiter son brevet sur l'acétate de cellulose, obtient l'exploitation du brevet du groupe US *Du Pont de Nemours* sur le nylon. En 1928, à l'occasion d'une fusion les Usines du Rhône deviennent les Usines chimiques Rhône-Poulenc.

Après la guerre, les Gillet et les Carnot réorganisent leurs productions : en 1952, CTA devient Celtex; en 1959, Gillet-Thaon devient Textil. Mais surtout en 1961 ils cèdent à Rhône-Poulenc, en contrepartie d'une participation dans ce groupe, les quatre cinquièmes des actifs contrôlés par Celtex; le cinquième restant est contrôlé par une nouvelle holding, Pricel, qui absorbe Textil quatre années plus tard et qui prendra en 1973 le contrôle de la banque d'affaire lyonnaise Veuve Morin Pons.

Rhône-Poulenc, société mère, capital social 1 894 millions F; 21 salariés; 22 avenue Montaigne 75008 Paris; tél. 256.40.00.
PRICEL; capital social 218 millions F 6 rue Paul-Baudry, 75008 Paris


Famille GILLET
PONT-A-MOUSSON
Groupe caisse des dépôts
10,1
4,7
2,6
RHÔNE-POULENC
holding
PRICEL
holding
[Chimie]
100
RPI RHONE POULENC INDUSTRIE
Toutes productions chimiques
[Chimie minérale]
Ammoniac du Grand-Quevilly *, Agq
Géen *, Générale des engrais
Fertilisants de l'ouest
Silfrance ; silicates et dérivés
Thann et Mulhouse
Potasse et produits chimiques *
99 Thann et Olin
13 Boussens *
et part. étr. du groupe :
Africaine des silicates. Sénégal
Algérienne des silicates. Algérie
Donan Chemie AG. Autriche
Kofran Chemicals. Corée du Sud
Quimina. Espagne
Progil NV. Belgique
Rhône-Poulenc chimica. Italie
Rhône-Progil Nederland. Pays-Bas
des phosphates de Thies
Ind. chim. du Nord de la Grèce
Silicates et dérivés. Maroc
Industrielle et minière ; recherches et exploit. minière calcaire, sels, etc.
Comilfluor *
Kuhlmann
21 Diversey France
[Pétro-chimie]
Aquitaine chimie *
Méthanolacq * ; methanol
Dauphinoise de fabric. chim.
éthylène propylene...
51 Antigels de liquides de freins, Scaif
50 Oxochimie ; butanol isobutanol...
Progil Bayer Ugine *, Pbu, Tdi, Mdi polyesters...
Progil Electrochimie *, Progelec ; phénol acétone oxyde de propylène...
Toulousaine de produits chimiques
Tolochimie, Tdi monoisocyanates...
Clorogil ; dérivés chlorés. Brésil
[Polymères]
Amorsig * (et ses filiales)
Manolène
Distugil
Prochal
Sodefine, Dév. des polyolefines
Fil. et part. étr. du groupe
Carrion. Espagne
Donau. polyner. Autriche
Polimeros de Mexico. Mexique
Polyolefins NV. Belgique
Reposa. Espagne
Violetta. Yougoslavie
[Chimie fine]
Givaudan Lavirotte et Cie
Givaudan Lavirotte laboratoires
100 Internationale des eaux potables industrielles et résiduaires
LAUTIER fils ; matières premières aromatiques, parfumerie
50 Francarome. Australie
100 Lautier Brésil. Brésil
100 Lautier Ltd. GB
100 Nichi Jutsu Koryo. Japon
100 Sorgiac. Suisse
Lautier inc. USA 100
(Rhodia inc. USA)
13 Soprodivag
50 Prodelec *, Prod. chim. huiles résines pour installations électriques
Roquette ; amidon, féculents
Sodip, Industries plastiques ; pièces moules, moulages en plastiques
100 XYLOCHIMIE ; protection des bois
75 Piguy
50 Proxyl. Belgique
50 Xylophène. Espagne
60 Xylochimie Hichson
[Bois agglomérés]
88 CELOGIL
100 Réaogil ; panneaux de particules bruts et stratifiés
67 Isogil * ; panneaux de fibres dures
Saborec * ; bois reconstitué
[Produits pharmaceutiques]
100 RHONE-POULENC SANTE, RPS
100 AEC ; chimie organique et biologique, vitamines, acides aminés
100 Adian Mariner laboratoires
51 MERIEUX Institut *
100 Centre de recherche et élevage oncin
99 Claude Bernard
98 Institut français d'immunologie
99 Institut sérothérapie Toulouse
72 Laboratoires de Stallergènes
100 Mérial
Fil. Cruz Mérieux. Brésil
49 Estrella Mérieux. Argentine
68 Intefira Uruguay. Uruguay
50 Rentschler Iffa. RFA
Autres fil. Belg., Chili, USA
25 Rhodia pharm.
50 ROGER BELLON
50 Orbel
96 Organosynthèse
Allymer France
Seronc
Neville Synthese Organies. USA
100 SPECIA
100 THERAPLIX
72 Industr. de travail mécan. du verre
100 PROLABO ; appareils de laboratoire
[Phyto-sanitaire]
100 PHILAGRO (ex Pepro)
100 Sogemaric
Buhler Fontaine
26 Bul'catch
Fil. et part. étr. du groupe
Agriben. Bénélux
Agrop. Portugal
Agrotec. RFA
Condor. Espagne
MAY AND BAKER. GB plus 14 autres pays
Bavit et Bpd. Italie
Volrho Ltd. Inde



[Financières]
82 BANQUE VEUVE MORIN PONS
20 Cofioim ; réalisations opérations immobilières
90 Financière de crédit bail
99 Financière d'équipement
19 Financière privée
100 Financière de participation
50 Pondar. Suisse
99 Serilax
10 Soprima ; privée d'investissement
10 Mutuelle industrielle
10 Mutuelle industrielle
100 Finco Ltd. GB
31 Financière pour l'industrie chimique *
99 Rhodanienne de courtage assurance et réassurance
[Films]
100 La CELLOPHANE films, plastiques, pvc
74 26 CHARLES NICOLLE
33 Clair embal
50 Contrapac ; ensachage
26 Industrielle des papiers cartons
79 Manuf. normande de papier hélio
33 Pellicule cellulosique
23 Reverchon rocaphane *
99 Sartore
33 Sirec ; réalisations études conditionnement
34 66 Sopem : exploit. ét. Morvillers
15 Embalajes plasticos. Espagne
49 51 Emballages plastiques, Sep
69 30 Pyral
Filiales en GB, RFA, Italie
87 Le quadrimétal offset
23 Rexort *
Filiales en Italie, Maroc, Inde
Fil. et part. étrangères du groupe
Anger. Autriche
British cellophane Ltd. GB
Codelux. Maroc
Fanocel Bénélux. Pays-Bas
Iberphane. Espagne
Polychrome. USA
Regma en Belgique, GB, PB, Maroc, Afrique du Sud
Spic. Portugal
Sidcel spa. Italie
[Immobilières]
(Roger Bellon)
83 Sicip
100 Profilim
100 Vauguin La Rochelle
100 Foncière de la Halle
(Price) Cofil, Financière immobilière
100 La Fayette
99 Sofrati
20 G. 80 Cofícim
98 (Price) David et Maigret
100 RHONE-POULENC TEXTILE-RPT
50 Chavanoz : texturation 50
Elastover * 50
Fashion Léonard ; bonneterie 10
14 FILES DE FOURMIES
66 Prouvost M.C. et R.
33 Thierry et Sigrand
Mérignac vêtements 100
10 Vestra union
20 GODDE BEDIN 33
100 Tissage de Bourzwiller (absorbé Godde Bedin en 1976)
98 Vollazur
+ 8 filiales en RFA, GB, Canada, USA
20 Quisa 80
SCOFAD 14
100 Vêtements Bayard
Fil. Gulcher et Coste
100 Maniglier ; confection
Serofim Tex. 50
Sodétal * ; câbles métalliques 90
Ventex 55
Fil. et part. étr. du groupe
Deutsche Rhodiaceta. RFA
Drag. RFA
Phillips fibers corp. USA
Rhodia Argentina.
Rhodia inc. USA.
Rhodia industrias. Brésil
Rhodia Nordeste. Brésil
Safa. Espagne
Viscose suisse. Suisse
[Textile]
49 Blanchisseries de Géradmer
99 Blanchisseries teintureries de Thaon, Btt
28 45 27 Impressions de Caudry
100 GILLET THAON
50 Impression troyenne, Sit
39 Teinturerie blanchiment de Cernay *
69 NOVACEL
100 Blanocel
86 Burmétal
100 Cinotex
100 Igeco, Invest. gestion comm
50 Lainière de Picardie Intissel * (75 % depuis mars 77)
75 Prochimic
50 Viscora *
50 Chemiezell Gmbh. RFA
50 Global Gmbh Globus Werke. RFA
90 Menagex. Suisse
100 Novacel. Belgique, Italie, Pays-Bas
100 Nova investments. GB
39 Viscose development cy Ltd. GB
48 Viskovita Krefelder Schwamm. RFA
73 13 SIPARTEX
11
5 DMC *, Dolfus Mieg et Cie
49 Texunion * (Jusqu'en mars 1977 cédé partiellement à DMC)
99 Sportiss et éts Jean Laurent
58 Teinturerie et apprêt du Trambouge
100 Tissaverre
98 Wallach
[Divers]
(AEC)
60 Somab, Marseillaise d'alimentation du bétail
(Files de Fourmies)
80 Céline, Traitement de l'information du Nord-Est
(Quisa)
15 Sehem *, Eur. horlogerie équip. mécan.
18 Française d'expansion commerciale et industrielle *
15 Gic, Groupement de l'industrie chimique *
(Naphtachimie)
6 Gifos
2 BSN Gervais Danone *
35 CELLULOSE DU PIN *
(Cofil)
20 17 Le Jouet français
(Ma) Heller
97 Thabor. Suisse
10 Bemberg. Italie
98 Soparval

Tout au long des années soixante, les restructurations de Rhône-Poulenc accompagnent la concen-
on et la redistribution des cartes au sein de la chimie française

Ainsi, derrière Rhône-Poulenc-Pricel, il y avait toute une alliance de familles lyonnaises : Gillet, les Carnot (R. Gillet et L. Carnot sont aux conseils des deux holdings principales). De son ·oire résulte un certain nombre de liens : participations de PUK et de SGPM dans Rhône-Pou- (avec la présence de P. Jouven et R. Martin à son conseil d'administration); participations de el dans DMC et BSN-GD (présence de A. Ribaud au conseil de Pricel); liens avec la famille loux-Schlumberger...

Ialgré la participation de SGPM (SUEZ) dans Rhône-Poulenc l'ensemble reste plutôt dans la ·re d'influence de PARIBAS, comme le montrent l'ensemble de ces liens et la présence croisée de Gillet au conseil de la Financière de Paris et des Pays-Bas et de J. de Fouchier au conseil de ·ne-Poulenc.

RP-PRICEL constitue un groupe dont la structure traduit la vieille habitude de la famille :t (et des familles alliées) de ne pas mettre tous ses œufs dans un même panier : outre Rhône- lenc et Pricel elle a aussi des participations dans les grands groupes mondiaux de la chimie : *'ont de Nemours, Bayer, Solvay.*

Rhône-Poulenc est de moins en moins un groupe textile (63 % du CA en 1962, 28,5 % du CA 975). C'est de plus en plus un groupe chimique (28 % du CA en 1962; 65,5 % du CA en 1975, pour la chimie proprement dite et 25 pour les produits pharmaceutiques et phytosanitaires). La uction de cellophane de films, secondaire, est en recul relatif (9 % du CA en 1962; 5 % en 1975). s activités industrielles de PRICEL restent principalement axées sur les textiles; les récentes ations réalisées avec DMC sur Texunion et sur Lainières de Picardie Intissel ne sont que des tifications de frontière ».

« Nous sommes trop français » déclarait R. Gillet en 1973 (*le Monde* du 2 octobre 1973). Les tés de RP situées à l'étranger réalisent plus du quart de son CA; mais l'internationalisation est accentuée pour le textile (55 % du CA du textile réalisé dans les sociétés étrangères), encore rtante pour les produits pharmaceutiques et phytosanitaires (30 % du CA de ce secteur réalisé les sociétés étrangères), mais faible pour les activités chimiques (7 % réalisé dans les sociétés ·gères)

implantations, principalement « européennes » jusqu'au début des années 1960, s'étendent peu à tous les continents.

Rhône-Poulenc a des usines dans la France entière, avec une concentration particulière dans le Est (région lyonnaise et vallée du Rhône), dans la région parisienne et la basse Seine (Rouen, d Quevilly et Gonfreville l'Orcher), dans le Nord et dans l'Est.

Conditions de travail nocives et dangereuses, et pollution accompagnent la grande production ·que : Saint-Auban, Lavera, Salindres, Saint-Fons, Pont-de-Claix, basse Seine.. Des licencie- massifs marquent la régression relative et l'internationalisation du secteur textile (Péage-de- sillon). Les travailleurs multiplient les contacts et renforcent leur organisation au niveau du ·e, liant de plus en plus les luttes d'aujou... à la préparation de la nationalisation attendue 1978

SCHLUMBERGER

— Une vieille famille de la bourgeoisie protestante de l'est de la France.
— Une multinationale porteuse de techniques de pointe dans la recherche pétrolière.
— L'une des plus puissantes banques d'affaires françaises.
— Une excellente rentabilité.

	millions F	
	Groupe	dont sous-groupe consolidé Schlumberger ltd.
Capitaux propres		4 700
Chiffre d'affaires		7 000
- dont filiales étrangères		75 %
Valeur ajoutée		
Bénéfice net avant impôt		1 500
Nombre de sociétés	112	
- dont en France	*79*	
- dont à l'étranger	*33*	
Nombre de salariés		15 000

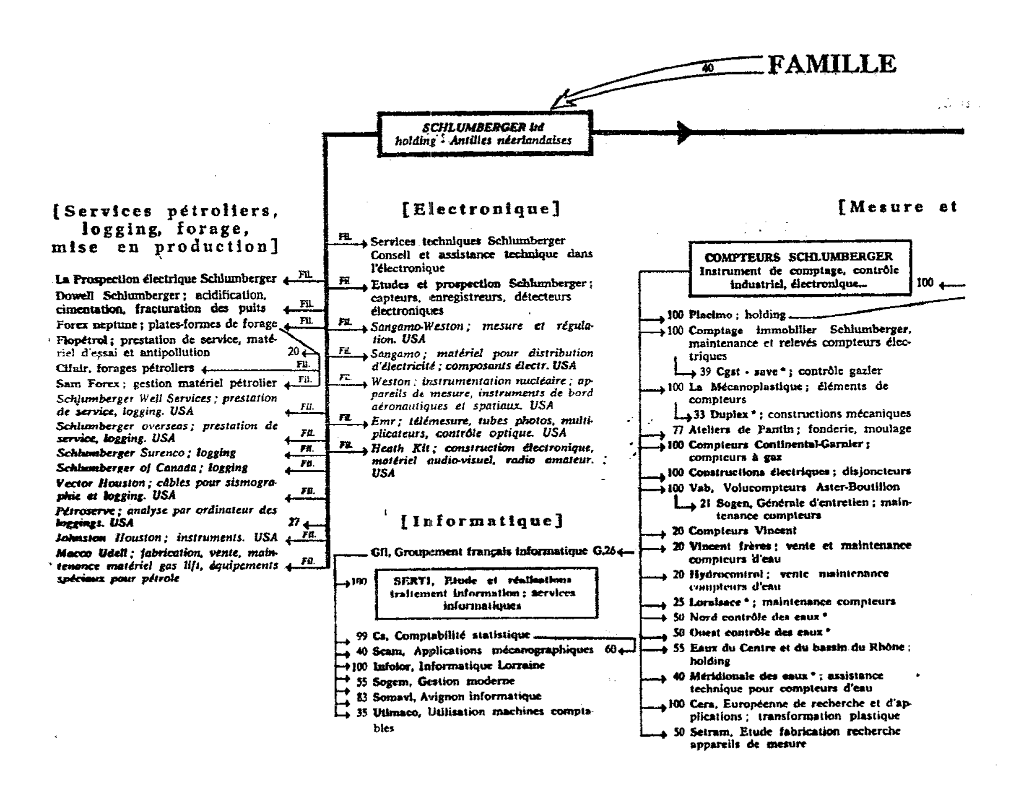
1. Les Schlumberger sont une vieille famille protestante installée en Alsace au milieu du xv^e siècle, qui s'engagea d'abord dans l'industrie textile (bonneterie puis filature de coton), puis la construction mécanique (métiers à tisser), enfin dans la banque. Les Schlumberger nouèrent de générations en générations des alliances matrimoniales avec les grandes familles de la bourgeoisie protestante : les Koechlin, les Mirabaud, les Mallet... En dehors de la banque — avec la banque Neuflize Schlumberger Mallet, NSM — le nom des Schlumberger est aujourd'hui surtout associé à la recherche pétrolière ainsi qu'aux compteurs et instruments de comptage avec *SCHLUMBERGER ltd* et les Compteurs Schlumberger. L'engagement de la famille dans la recherche pétrolière remonte à un demi-siècle, lors de la mise au point par Conrad et Marcel Schlumberger de procédés de mesure électrique permettant d'étudier les caractéristiques du sous-sol (« logging »). Durant l'entre-deux-guerres, la firme fondée par les deux frères — la Prospection électrique Schlumberger — connaît un développement important, en particulier aux USA. Mais c'est au lendemain de la Deuxième Guerre mondiale, grâce au « boom » international de la production et de la consommation pétrolière qu'elle se développe à vitesse accélérée et étend ses activités, aux USA et en Europe, à l'électronique et au comptage.

2. Dans le cadre de ses alliances avec la bourgeoisie protestante, la famille Schlumberger conserve le contrôle de ses entreprises : moins dans la banque, où les actionnaires de NSM ont dû céder une part du capital à une banque hollandaise, mais surtout dans le secteur pétrolier, puisqu'elle détient une quasi-majorité dans le capital de *Schlumberger ltd.* La famille entretient des relations étroites avec Paribas (qui a repris les activités de la Banque Mirabaud, alliée des Schlumberger), avec BSN-GD (le frère des Riboud, PDG de *Schlumberger ltd*, est PDG de BSN-GD), avec RP-Pricel (J. Seydoux, petit-fils de Marcel Schlumberger, est PDG de Pricel).

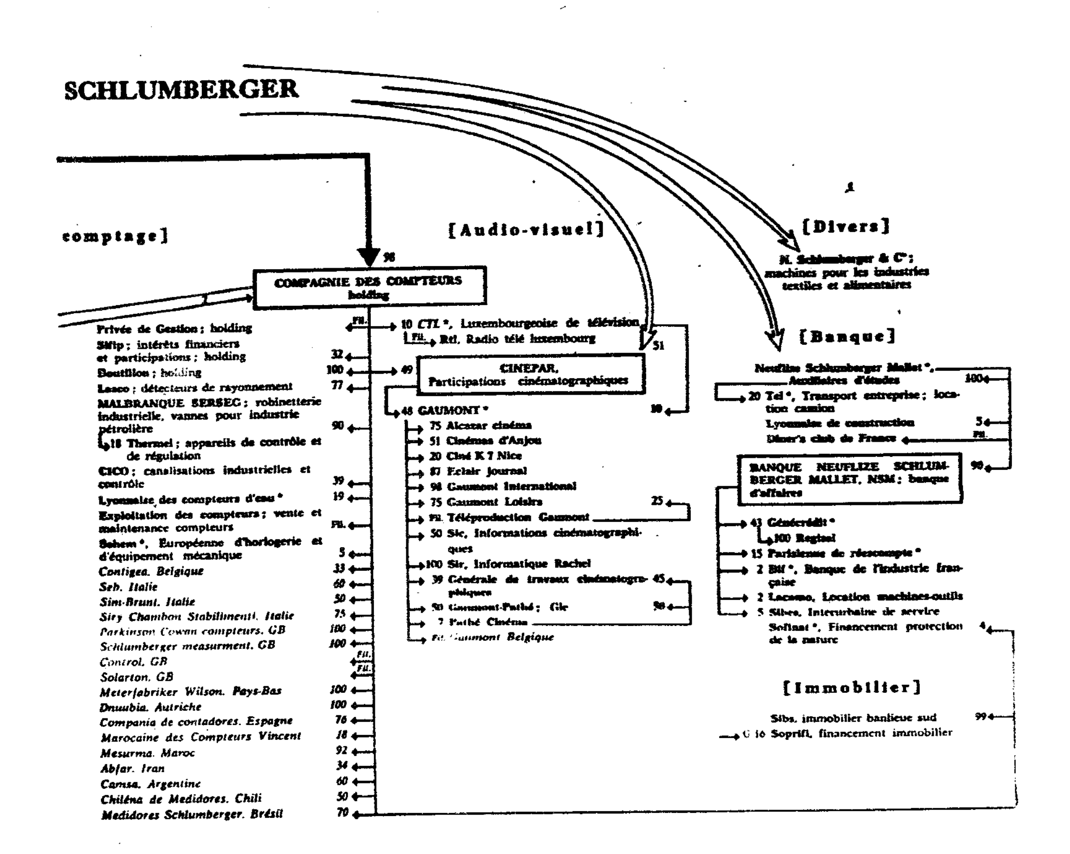
3. La famille Schlumberger s'appuie sur deux sociétés principales : la Banque Neuflize Schlumberger Mallet (NSM) qui coiffe les activités bancaires et l'informatique et joue le rôle de banque du

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Schlumberger ltd, société mère; capital social 1 34[illegible] millions F; Handelskade 9 B, Willemstad Curaçao, Antilles néerlandaises.



40
FAMILLE
SCHLUMBERGER ltd
holding : Antilles néerlandaises
[Services pétroliers, logging, forage, mise en production]
La Prospection électrique Schlumberger
Fil.
Dowell Schlumberger ; acidification, cimentation, fracturation des puits
Fil.
Forex neptune ; plates-formes de forage
Fil.
Flopétrol ; prestation de service, matériel d'essai et antipollution
20
Cifsir, forages pétroliers
Fil.
Sam Forex ; gestion matériel pétrolier
Fil.
Schlumberger Well Services ; prestation de service, logging. USA
Fil.
Schlumberger overseas ; prestation de service, logging. USA
Fil.
Schlumberger Surenco ; logging
Fil.
Schlumberger of Canada ; logging
Fil.
Vector Houston ; câbles pour sismographie et logging. USA
Fil.
Pétroserve ; analyse par ordinateur des loggings. USA
27
Johnston Houston ; instruments. USA
Fil.
Macco Udell ; fabrication, vente, maintenance matériel gas lift, équipements spéciaux pour pétrole
Fil.
[Electronique]
Fil.
Services techniques Schlumberger Conseil et assistance technique dans l'électronique
Fil.
Etudes et prospection Schlumberger ; capteurs, enregistreurs, détecteurs électroniques
Fil.
Sangamo-Weston ; mesure et régulation. USA
Fil.
Sangamo ; matériel pour distribution d'électricité ; composants électr. USA
Fil.
Weston ; instrumentation nucléaire ; appareils de mesure, instruments de bord aéronautiques et spatiaux. USA
Fil.
Emr ; télémesure, tubes photos, multiplicateurs, contrôle optique. USA
Fil.
Heath Kit ; construction électronique, matériel audio-visuel, radio amateur. USA
[Informatique]
Gfl, Groupement français informatique G.26
100
SERTI, Etude et réalisations traitement information ; services informatiques
99 Cs, Comptabilité statistique
40 Scam, Applications mécanographiques
60
100 Infolor, Informatique Lorraine
55 Sogem, Gestion moderne
83 Somavi, Avignon informatique
35 Utimaco, Utilisation machines comptables
[Mesure et
COMPTEURS SCHLUMBERGER
Instrument de comptage, contrôle industriel, électronique...
100
100 Placimo ; holding
100 Comptage immobilier Schlumberger, maintenance et relevés compteurs électriques
39 Cgst - save * ; contrôle gazier
100 La Mécanoplastique ; éléments de compteurs
33 Duplex * ; constructions mécaniques
77 Ateliers de Pantin ; fonderie, moulage
100 Compteurs Continental-Garnier ; compteurs à gaz
100 Constructions électriques ; disjoncteurs
100 Vab, Volucompteurs Aster-Boutillon
21 Sogen, Générale d'entretien ; maintenance compteurs
20 Compteurs Vincent
20 Vincent frères ; vente et maintenance compteurs d'eau
20 Hydrocontrol ; vente maintenance compteurs d'eau
25 Loralsace * ; maintenance compteurs
50 Nord contrôle des eaux *
50 Ouest contrôle des eaux *
55 Eaux du Centre et du bassin du Rhône ; holding
40 Méridionale des eaux * ; assistance technique pour compteurs d'eau
100 Cera, Européenne de recherche et d'applications ; transformation plastique
50 Setram, Etude fabrication recherche appareils de mesure



SCHLUMBERGER
comptage]
[Audio-visuel]
[Divers]
[Banque]
[Immobilier]
98
COMPAGNIE DES COMPTEURS
holding
Fil. Privée de Gestion ; holding
32 Sflp ; intérêts financiers et participations ; holding
100 Boutillon ; holding
77 Lasco ; détecteurs de rayonnement
90 MALBRANQUE SERSEC ; robinetterie industrielle, vannes pour industrie pétrolière
18 Thermel ; appareils de contrôle et de régulation
39 CICO ; canalisations industrielles et contrôle
19 Lyonnaise des compteurs d'eau *
Fil. Exploitation des compteurs ; vente et maintenance compteurs
5 Sahem *, Européenne d'horlogerie et d'équipement mécanique
33 Contigea. Belgique
60 Seb. Italie
50 Sim-Brunt. Italie
75 Siry Chambon Stabilimenti. Italie
100 Parkinson Cowan compteurs. GB
100 Schlumberger measurment. GB
Fil. Control. GB
Fil. Solarton. GB
100 Meterfabriker Wilson. Pays-Bas
100 Dnuubia. Autriche
76 Compania de contadores. Espagne
18 Marocaine des Compteurs Vincent
92 Mesurma. Maroc
34 Abfar. Iran
60 Camsa. Argentine
50 Chiléna de Medidores. Chili
70 Medidores Schlumberger. Brésil
10 CTL *, Luxembourgeoise de télévision
Fil. Rtl. Radio télé luxembourg
51
49 CINEPAR, Participations cinématographiques
48 GAUMONT *
10
75 Alcazar cinéma
51 Cinémas d'Anjou
20 Ciné K 7 Nice
87 Eclair Journal
98 Gaumont International
75 Gaumont Loisirs
25
Fil. Téléproduction Gaumont
50 Sic, Informations cinématographiques
100 Sir, Informatique Rachel
39 Générale de travaux cinématographiques
45
50 Gaumont-Pathé ; Gie
50
7 Pathé Cinéma
Fil. Gaumont Belgique
M. Schlumberger & Cie ; machines pour les industries textiles et alimentaires
Neuflize Schlumberger Mallet *,
Auxiliaires d'études
100
20 Tel *, Transport entreprise ; location camion
Lyonnaise de construction
5
Diner's club de France
Fil.
BANQUE NEUFLIZE SCHLUMBERGER MALLET, NSM ; banque d'affaires
90
43 Génécrédit *
100 Regisol
15 Parisienne de réescompte *
2 Bif *, Banque de l'industrie française
2 Locamo, Location machines-outils
5 Sibes, Interurbaine de service
Sofinat *, Financement protection de la nature
4
Sibs, immobilier banlieue sud
99
16 Soprifi, financement immobilier

groupe; *Schlumberger ltd* qui coiffe les activités pétrolières et de comptage *Schlumberger ltd* est une société installée aux Antilles néerlandaises pour des raisons fiscales, mais le groupe, quoique fortement internationalisé, reste indéniablement à base française.

4. Le sous-groupe *Schlumberger ltd* intervient dans le secteur pétrolier comme prestataire de service et depuis quelques années comme foreur. Pour le logging, le groupe couvre environ 60 % du marché américain et plus des trois quarts du marché du monde occidental, et possède un quasi-monopole pour les recherches pétrolières en mer. *Schlumberger ltd* est le plus internationalisé des groupes de services pétroliers et l'un des plus rentables. La crise pétrolière, le coup de fouet donné à la recherche en mer et dans des zones nouvelles et difficiles (Alaska...) lui ont directement profité. L'implantation du groupe dans l'électronique et le comptage procède en droite ligne de ses activités dans le pétrole et constitue un débouché pour le savoir-faire et les connaissances acquis dans le « logging ». L'électronique s'est révélée jusqu'à présent un secteur peu rentable pour le groupe, mais la prise de contrôle de la Cie des Compteurs en 1971 lui a donné une position dominante dans la CEE pour le comptage : le groupe contrôle 20 % du marché européen des compteurs électriques, 37 % du marché des compteurs d'eau, 40 % des compteurs à gaz. Les activités pétrolières représentent 54 % du chiffre d'affaires consolidé de *Schlumberger ltd*, les activités d'électronique et de comptage 46 %.

A ces activités s'ajoutent le contrôle de la famille Schlumberger sur Gaumont et une participation au capital de la société mère de Radio-Télé-Luxembourg.

Le pôle bancaire des activités de la famille est moins connu : la Banque Neuflize Schlumberger Mallet est cependant l'une des premières banques d'affaires françaises, gérant un portefeuille important de titres et intervenant activement sur le marché financier mondial. En France, la Banque NSM contrôle le Groupement français d'informatique qui possède la Serti, l'une des premières sociétés françaises de service et conseil en informatique.

Les entreprises de la famille Schlumberger réalisent une excellente rentabilité : le chiffre d'affaires de *Schlumberger ltd* s'est multiplié par 3,6 entre 1966 et 1975 et les bénéfices avant impôts ont représenté 22 % du chiffre d'affaires en 1975. 90 % des bénéfices proviennent des activités pétrolières. De sa création à 1971, *Schlumberger ltd* n'a jamais procédé à une augmentation de capital par appel au public.

5 Les activités de service pétrolier du groupe sont extrêmement internationalisées : il intervient partout où l'on fait de la recherche pétrolière : USA, Moyen et Extrême-Orient, Afrique, Europe. Les autres activités de Schlumberger ne sont pas moins internationalisées : les filiales américaines et européennes forment un ensemble intégré à l'échelle mondiale se répartissant productions et marchés. Globalement, le chiffre d'affaires de *Schlumberger ltd* se décompose ainsi : France 27 %, USA et Canada 25 %, autres pays 48 %.

6. En France, le groupe Schlumberger est d'abord implanté dans la région parisienne (Montrouge, Passy...). Il possède aussi des unités de production dans la région ouest (Châteauroux, Vierzon), la région de Lyon, Besançon...

7. Les Schlumberger et leurs alliés passent pour progressistes sur le plan social : cela ne les empêche pas de mener à la hussarde les restructurations de leurs entreprises : en 1970 la Cie des Compteurs compte 27 000 employés; en 1974 il n'en reste plus que 22 000. Mais les Schlumberger s'affirment aussi « progressistes » sur le plan politique : « Je ne crois pas que l'intérêt des patrons soit forcément de voter pour Giscard d'Estaing », déclarait J. Seydoux au *Point* en mai 1974. Et il explique en février 1975 à un journaliste de l'*Expansion* que seule la gauche lui semblait capable d'obtenir le consensus nécessaire à l'achèvement des mutations de la société française. Symptôme de la crise d'hégémonie de la bourgeoisie et des contradictions qui la traversent.

4. Si l'ensemble du groupe actuel, compte tenu des histoires complexes dont il résulte, est encore ·sparate, les lignes de développement sont maintenant bien dégagées.

Axe principal : la métallurgie, la mécanique et l'électro-mécanique, avec comme choix stratégique nucléaire. Car la grande affaire du groupe Empain-Schneider c'est assurément l'industrie nucléaire: ·puis le début des années 1970, la stratégie du groupe a été axée sur un but : contrôler l'industrie ınçaise des centrales nucléaires. Pari tenu, puisque Empain-Schneider a volé de succès en succès : ·pui sans faille de la Vᵉ République pompidolienne puis giscardienne; abandon de la filière du EA au profit des techniques *Westinghouse;* financement public multiforme (avances d'EDF, échéan-:r sur mesure, entrée du CEA à Framatome...); prospection inlassable des ministres français auprès ·s gouvernements étrangers, du tiers monde spécialement (exportation de centrales en Irak, Iran...); iction du concurrent potentiel (la CGE); et enfin entrée, dans la structure d'étude et de production ·s réacteurs surgénérateurs, filière où le CEA bénéficie d'une grande avance technique sur les Amé-·ains... Creusot-Loire avec Framatome et Novatome, en est l'instrument principal, épaulé par la étallurgique de Normandie (aciérie), Merlin-Gérin (matériel électrique), Jeumont-Schneider (élec-›mécanique). Autres axes, souvent liés, la construction navale (Chantiers de France Dunkerque), machine-outil (Ernault-Somua), les travaux publics (Spie-Batignolles), l'horlogerie (Jaz)... ıfin, avec la Financière et la Banque de l'Union européenne, Empain-Schneider dispose d'un ·portant instrument bancaire et financier.

;. Le groupe belge *Empain* aurait la moitié de ses actifs en France, un tiers en Belgique et le reste ıncipalement outre-Atlantique (d'après J. Grapin, *le Monde* du 5 février 1974, cité par le CRISP). La multinationalisation des entreprises du groupe Empain-Schneider reste moyenne. Elle est prin-·alement le fait des entreprises les plus en flèche : Creusot-Loire, Jeumont-Schneider, Merlin-Gérin, ie-Batignolles... Notons la tentative récente d'implantation aux États-Unis dans les tôles fortes ·ciales avec le rachat et la réorganisation radicale de *Phoenix Steel.*

›. 7. Les entreprises d'Empain-Schneider (plusieurs centaines) sont présentes dans toutes les ·ions de France, avec des zones particulièrement denses autour du Creusot, dans la région de :noble (Merlin-Gérin), dans la région parisienne...

Merlin-Gérin, Chantiers de France Dunkerque, Ernault-Somua, Spie-Batignolles, Creusot-Loire : principales entreprises du groupe Empain-Schneider ont été et restent le lieu de luttes ouvrières ›ortantes. Depuis quelques années la direction recourt à de nouvelles méthodes; les organisations ıdicales ont récemment dénoncé le recours à des entreprises d'intérim musclé et différentes formes brimades contre les syndicalistes par exemple à Framatome. Les intentions paternalistes ne sont : totalement absentes; ainsi, dans un article publié dans *Humanisme et Entreprise*, M. Collas, ·cteur général de Creusot-Loire, manie l'aphorisme avec l'élégance de quelqu'un qui connaît ı les conditions de travail dans la métallurgie et la grosse mécanique : « un courant d'air n'est ›ais agréable, mais il est mieux supporté quand on sait que le patron a essayé sans succès de l'évi- ».

ıRE Les nombreuses interviews du baron Empain et des hommes de la direction du groupe dans la presse dite d'affaires.

ROTHSCHILD

— Une banque, un nom, une famille, une longue histoire;
— Aujourd'hui un groupe financier privilégiant 5 axes de développement :
- — banque,
- — métaux non ferreux (Imétal),
- — transports (Saga, Cegf),
- — tourisme hôtellerie (Plm),
- — pétrole (Francarep).

— Le Programme commun prévoit la nationalisation de l'ensemble du secteur bancaire et financier.

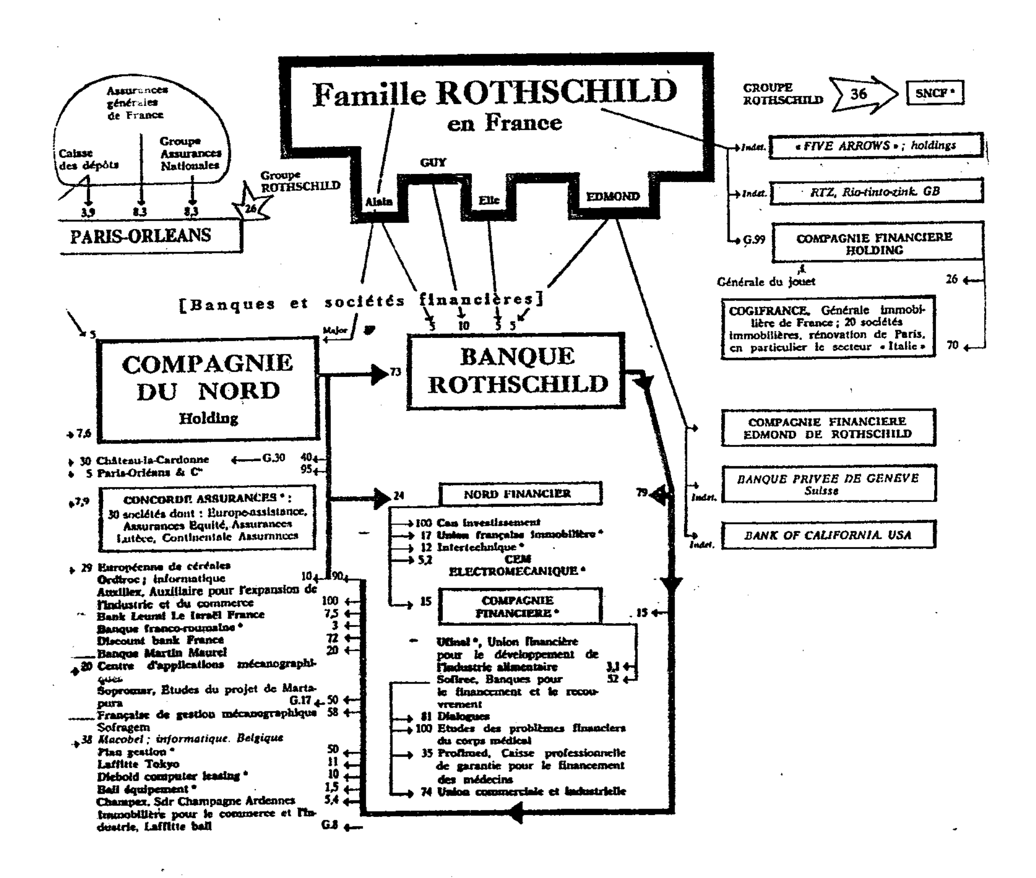
	millions F		
	Cie du Nord	Imétal	Ensemble du groupe
Capitaux propres		3 020	
Chiffre d'affaires		3 983	
Valeur ajoutée			
Cash flow		252	
Nombre de sociétés	148	90	249
- dont en France	*120*	*49*	*176*
- dont à l'étranger	*28*	*41*	*73*
Nombre de salariés			

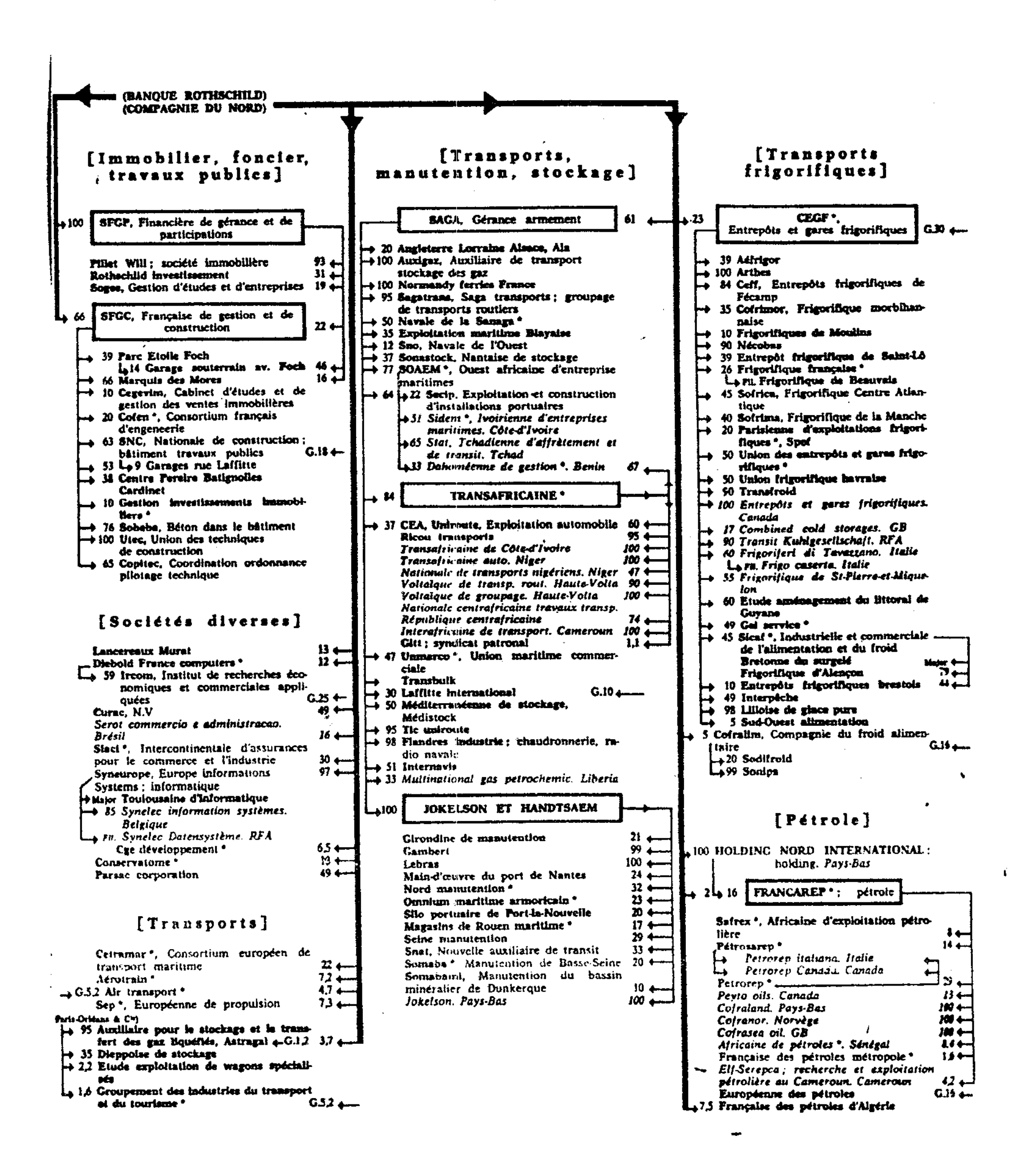
1. Une légende familiale qui commence à la fin du XVIe siècle à Francfort : « Rotes Schild », l'enseigne de la boutique de friperie donne à la famille d'Isaac Elchnan le nom qui deviendra célèbre au XIXe siècle. Au milieu du XVIIIe siècle, dans la Judengasse, ghetto de Francfort, Amschel Moses exerce l'un des rares métiers qui soit autorisé aux hommes de sa religion : changeur. L'Allemagne alors composée d'une multiplicité de petites principautés ayant leurs monnaies propres rendait ce métier florissant. Véritable fondateur de la puissance des Rothschild, son fils, Meyer Amschel, reprit l'affaire à la mort de son père en 1756. Il est introduit à la cour du Landgraf de Hesse Guillaume IX comme vendeur de pièces de monnaies anciennes, et jettera lors de la conquête de l'Europe par Napoléon Ier et du blocus continental les bases d'une puissance financière en Europe, envoyant, au fil des événements politiques, ses fils s'établir dans les différentes places bancaires européennes : Nathan en Angleterre, James à Paris, Amschel-Meyer à Francfort, Salomon en Espagne (puis, à partir de 1815, à Vienne), Charles à Naples. Présents sur ces places, ils effectuent entre eux des opérations commerciales rentables, évitent, par le clearing, des transferts de fonds hasardeux et établissent un réseau d'information à la fois sûr et rapide, grâce auquel ils réalisent un fructueux coup de Bourse à Londres lors de la bataille de Waterloo.

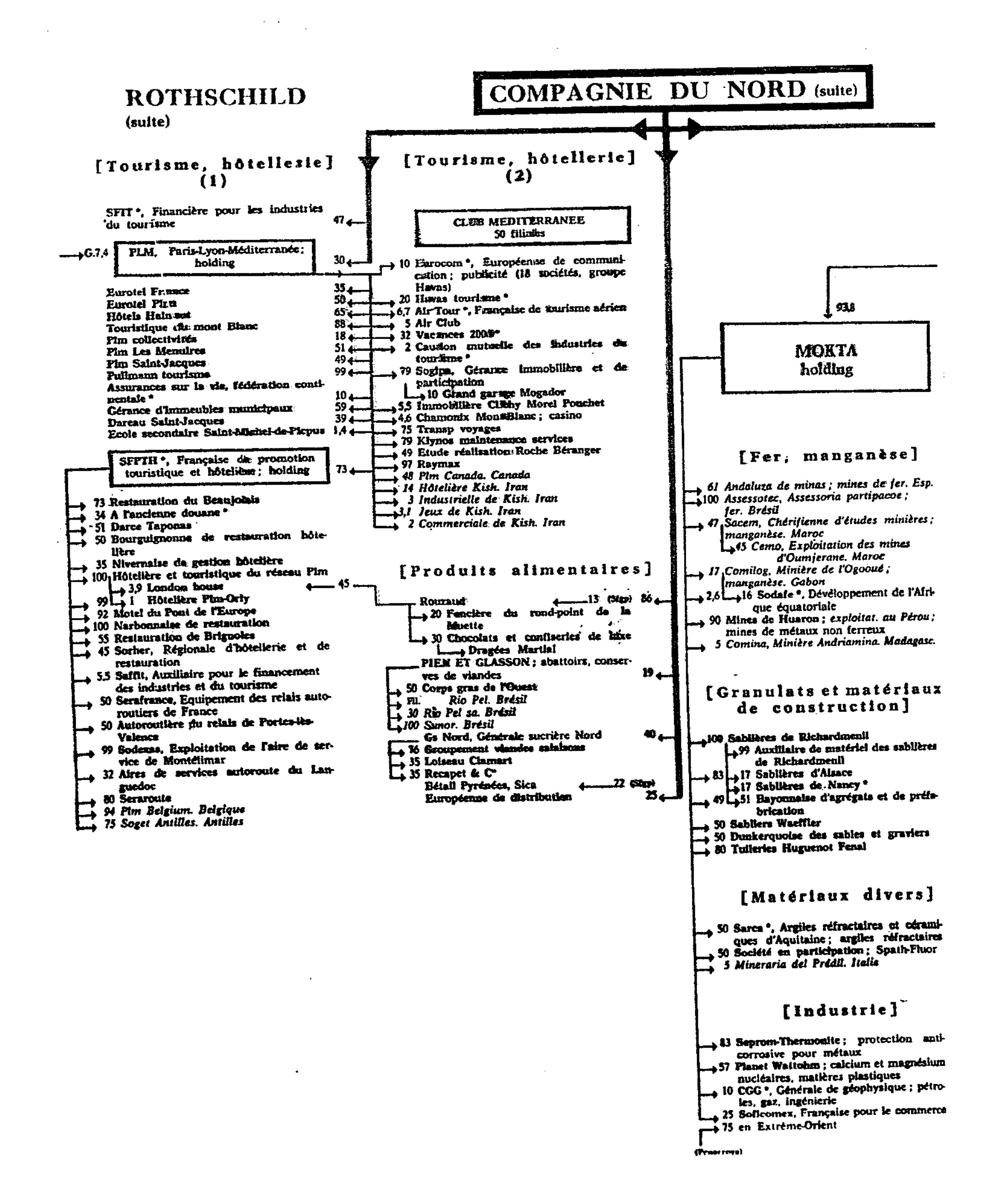
Les frères Rothschild s'imposent comme financiers dans les différents pays et continuent d'entretenir entre eux des liens étroits, partageant, par un contrat d'association, les bénéfices de chacun. Banquiers de la Sainte Alliance, leur principale activité est de prêter aux rois et aux gouvernements. Sur cette base, les Rothschild développent en France, par vagues successives, leurs activités autour de trois axes principaux : la banque, le chemin de fer, les métaux non ferreux.

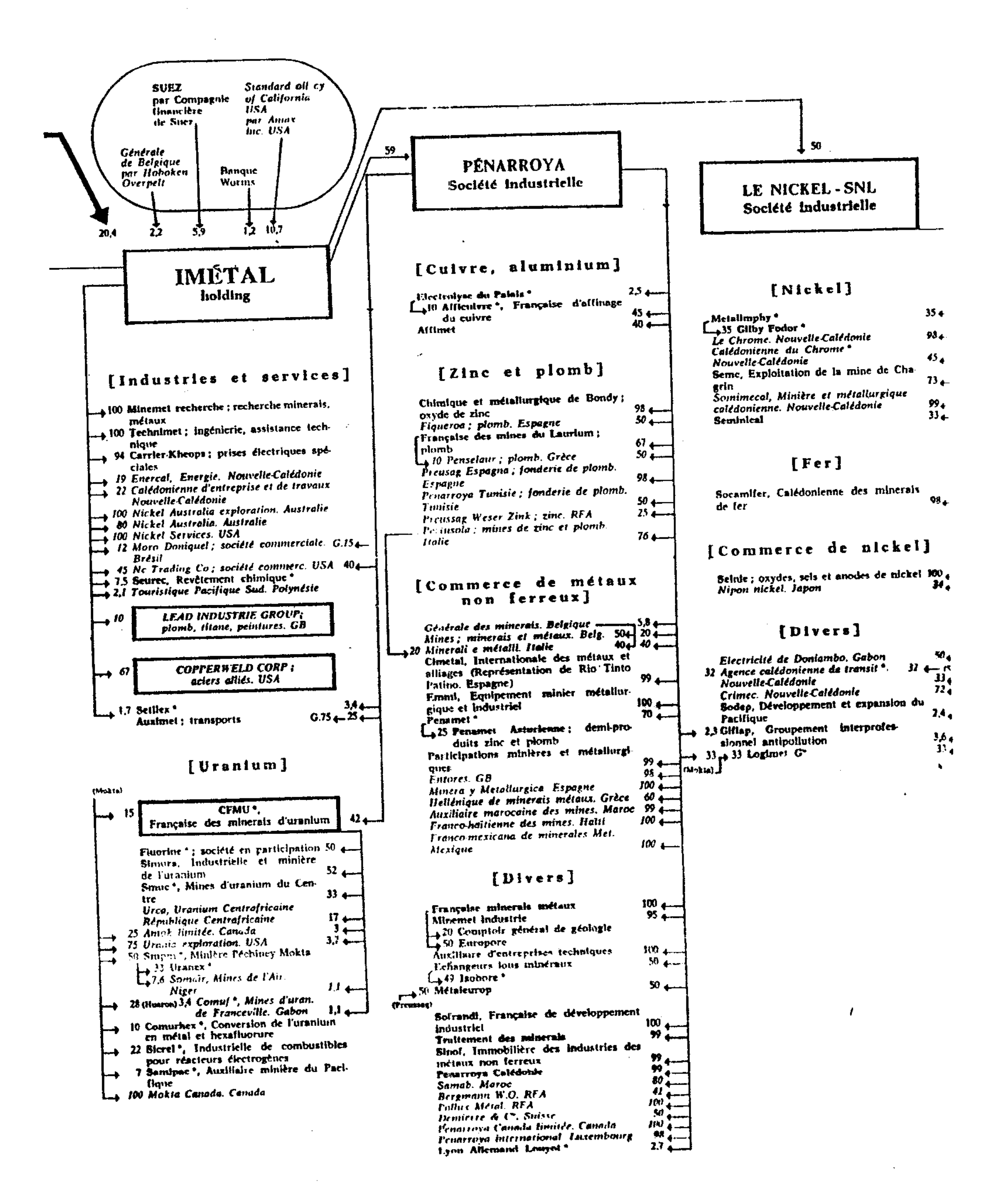
LA BANQUE : la « Maison de Banque » est fondée par James à Paris en 1817; elle aide les régimes successifs aux prises avec des difficultés financières. En 1832, le premier emprunt d'État adjugé à une banque l'est aux Rothschild. De même en Angleterre en 1875, Lionel avancera au gouvernement de la reine Victoria une partie des fonds nécessaires à l'achat des parts du canal de Suez. Les Rothschild innovent en matière de technique financière : négoce rapide des traites, emprunts à lots et à remboursement fixe, « travellers-chèques », actions à coût relativement faible, donc plus largement réparties...). Leur banque, longtemps restée une banque d'affaires familiale au capital réparti entre les membres de la famille, devient en 1905 société en nom collectif « MM. Rothschild frères »

Compagnie du Nord, principale holding; capital social 537 millions F 62 salariés. 21, rue Laffitte, 75009 Paris; tél. 523.47.47.
Banque Rothschild, même adresse.


Famille ROTHSCHILD
en France
Alain
GUY
Elie
EDMOND
Assurances générales de France
Caisse des dépôts
Groupe Assurances Nationales
3,9
8,3
8,3
Groupe ROTHSCHILD
26
PARIS-ORLEANS
GROUPE ROTHSCHILD
36
SNCF *
Indét.
« FIVE ARROWS » ; holdings
Indét.
RTZ, Rio-tinto-zink. GB
G.99
COMPAGNIE FINANCIERE HOLDING
Générale du jouet
26
COGIFRANCE. Générale immobilière de France ; 20 sociétés immobilières, rénovation de Paris, en particulier le secteur « Italie »
70
[Banques et sociétés financières]
5
10
5
5
Major
5
COMPAGNIE DU NORD
Holding
7,6
73
BANQUE ROTHSCHILD
30 Château-la-Cardonne
G.30
40
5 Paris-Orléans & Cie
95
7,9
CONCORDE ASSURANCES * :
30 sociétés dont : Europe-assistance, Assurances Equité, Assurances Lutèce, Continentale Assurances
24
NORD FINANCIER
79
100 Can Investissement
17 Union française immobilière *
12 Intertechnique *
5,2
CEM
ELECTROMECANIQUE *
15
COMPAGNIE FINANCIERE *
15
Ufinal *, Union financière pour le développement de l'industrie alimentaire
3,1
Sofiree, Banques pour le financement et le recouvrement
52
81 Dialogues
100 Etudes des problèmes financiers du corps médical
35 Profimed, Caisse professionnelle de garantie pour le financement des médecins
74 Union commerciale et industrielle
29 Européenne de céréales
Ordiroc ; informatique
10
90
Auxiliex, Auxiliaire pour l'expansion de l'industrie et du commerce
100
Bank Leumi Le Israël France
7,5
Banque franco-roumaine *
3
Discount bank France
72
Banque Martin Maurel
20
20 Centre d'applications mécanographiques
Sopromar, Etudes du projet de Martapura
G.17
50
Française de gestion mécanographique
58
Sofragem
38 Macobel ; informatique. Belgique
Plan gestion *
50
Laffitte Tokyo
11
Diebold computer leasing *
10
Bail équipement *
1,5
Champex, Sdr Champagne Ardennes
5,4
Immobilière pour le commerce et l'industrie, Laffitte bail
G.8
COMPAGNIE FINANCIERE EDMOND DE ROTHSCHILD
Indét.
BANQUE PRIVEE DE GENEVE
Suisse
Indét.
BANK OF CALIFORNIA. USA


(BANQUE ROTHSCHILD)
(COMPAGNIE DU NORD)
[Immobilier, foncier, travaux publics]
100 SFGP, Financière de gérance et de participations
Pillet Will ; société immobilière 93
Rothschild investissement 31
Sogee, Gestion d'études et d'entreprises 19
66 SFGC, Française de gestion et de construction 22
39 Parc Etoile Foch
14 Garage souterrain av. Foch 46
66 Marquis des Mores 16
10 Cegevim, Cabinet d'études et de gestion des ventes immobilières
20 Cofen *, Consortium français d'engeneerie
63 SNC, Nationale de construction ; bâtiment travaux publics G.18
53 9 Garages rue Laffitte
38 Centre Pereire Batignolles Cardinet
10 Gestion investissements immobiliers *
76 Sobeba, Béton dans le bâtiment
100 Utec, Union des techniques de construction
65 Copitec, Coordination ordonnance pilotage technique
[Sociétés diverses]
Lancereaux Murat 13
Diebold France computers * 12
59 Ircom, Institut de recherches économiques et commerciales appliquées G.25
Curac, N.V 49
Serot commercio e administracao. Brésil 16
Siaci *, Intercontinentale d'assurances pour le commerce et l'industrie 30
Syneurope, Europe informations Systems ; informatique 97
Major Toulousaine d'informatique
85 Synelec information systèmes. Belgique
Fil. Synelec Datensystème. RFA
Cge développement * 6,5
Conservatome * 13
Parsac corporation 49
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Cetramar *, Consortium européen de transport maritime 22
Aérotrain * 7,2
G.5.2 Air transport * 4,7
Sep *, Européenne de propulsion 7,3
Paris-Orléans & Cie)
95 Auxiliaire pour le stockage et le transfert des gaz liquéfiés, Astragal G.1.2 3,7
35 Dieppoise de stockage
2,2 Etude exploitation de wagons spécialisés
1,6 Groupement des industries du transport et du tourisme * G.5.2
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SAGA, Gérance armement 61
20 Angleterre Lorraine Alsace, Ala
100 Auxigaz, Auxiliaire de transport stockage des gaz
100 Normandy ferries France
95 Sagatrans, Saga transports ; groupage de transports routiers
50 Navale de la Sanaga *
35 Exploitation maritime Blayaise
12 Sno, Navale de l'Ouest
37 Sonastock, Nantaise de stockage
77 SOAEM *, Ouest africaine d'entreprise maritimes
64 22 Secip, Exploitation et construction d'installations portuaires
31 Sidem *, Ivoirienne d'entreprises maritimes. Côte-d'Ivoire
65 Stat, Tchadienne d'affrètement et de transit. Tchad
33 Dahoméenne de gestion *. Benin 67
84 TRANSAFRICAINE *
37 CEA, Unirvute, Exploitation automobile 60
Ricou transports 95
Transafricaine de Côte-d'Ivoire 100
Transafricaine auto. Niger 100
Nationale de transports nigériens. Niger 47
Voltaïque de transp. rout. Haute-Volta 90
Voltaïque de groupage. Haute-Volta 100
Nationale centrafricaine travaux transp. République centrafricaine 74
Interafricaine de transport. Cameroun 100
Gitt ; syndicat patronal 1,1
47 Unmarco *, Union maritime commerciale
Transbulk
30 Laffitte International G.10
50 Méditerranéenne de stockage, Médistock
95 Tic uniroute
98 Flandres industrie ; chaudronnerie, radio navale
51 Internavis
33 Multinational gas petrochemic. Liberia
100 JOKELSON ET HANDTSAEM
Girondine de manutention 21
Gambert 99
Lebras 100
Main-d'œuvre du port de Nantes 24
Nord manutention * 32
Omnium maritime armoricain * 23
Silo portuaire de Port-la-Nouvelle 20
Magasins de Rouen maritime * 17
Seine manutention 29
Snat, Nouvelle auxiliaire de transit 33
Somaba * Manutention de Basse-Seine 20
Somabaml, Manutention du bassin minéralier de Dunkerque 10
Jokelson. Pays-Bas 100
[Transports frigorifiques]
23 CEGF *, Entrepôts et gares frigorifiques G.30
39 Aéfrigor
100 Arthes
84 Ceff, Entrepôts frigorifiques de Fécamp
35 Cofrimor, Frigorifique morbihannaise
10 Frigorifiques de Moulins
90 Nécobas
39 Entrepôt frigorifique de Saint-Lô
26 Frigorifique française *
Fil. Frigorifique de Beauvais
45 Sofrica, Frigorifique Centre Atlantique
40 Sofrima, Frigorifique de la Manche
20 Parisienne d'exploitations frigorifiques *, Spef
50 Union des entrepôts et gares frigorifiques *
50 Union frigorifique havraise
50 Transfroid
100 Entrepôts et gares frigorifiques. Canada
17 Combined cold storages. GB
90 Transit Kuhlgesellschaft. RFA
60 Frigoriferi di Tavazzano. Italie
Fil. Frigo caserta. Italie
55 Frigorifique de St-Pierre-et-Miquelon
60 Etude aménagement du littoral de Guyane
49 Gel service *
45 Sicaf *, Industrielle et commerciale de l'alimentation et du froid
Bretonne du surgelé Major
Frigorifique d'Alençon 79
10 Entrepôts frigorifiques brestois 44
49 Interpêche
98 Lilloise de glace pure
5 Sud-Ouest alimentation
5 Cofralim, Compagnie du froid alimentaire G.14
20 Sodifroid
99 Sonipa
[Pétrole]
100 HOLDING NORD INTERNATIONAL : holding. Pays-Bas
2 16 FRANCAREP * ; pétrole
Safrex *, Africaine d'exploitation pétrolière 8
Pétrosarep * 14
Petrorep italiana. Italie
Petrorep Canada. Canada
Petrorep * 29
Peyto oils. Canada 13
Cofraland. Pays-Bas 100
Cofranor. Norvège 100
Cofrasea oil. GB 100
Africaine de pétroles *. Sénégal 8,4
Française des pétroles métropole * 1,6
Elf-Serepca ; recherche et exploitation pétrolière au Cameroun. Cameroun 4,2
Européenne des pétroles G.15
7,5 Française des pétroles d'Algérie


ROTHSCHILD
(suite)
COMPAGNIE DU NORD (suite)
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SFIT *, Financière pour les industries du tourisme 47
G.7,4
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Eurotel France 35
Eurotel Plm 50
Hôtels Hainaut 65
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Plm collectivités 18
Plm Les Menuires 51
Plm Saint-Jacques 49
Pullmann tourisme 99
Assurances sur la vie, fédération continentale * 10
Gérance d'immeubles municipaux 59
Dareau Saint-Jacques 39
Ecole secondaire Saint-Michel-de-Picpus 1,4
SFPTH *, Française de promotion touristique et hôtelière; holding 73
73 Restauration du Beaujolais
34 A l'ancienne douane *
51 Darce Taponas
50 Bourguignonne de restauration hôtelière
35 Nivernaise de gestion hôtelière
100 Hôtelière et touristique du réseau Plm
3,9 London house
99 1 Hôtelière Plm-Orly
92 Motel du Pont de l'Europe
100 Narbonnaise de restauration
55 Restauration de Brignoles
45 Sorher, Régionale d'hôtellerie et de restauration
5,5 Saffit, Auxiliaire pour le financement des industries et du tourisme
50 Serafrance, Equipement des relais autoroutiers de France
50 Autoroutière du relais de Portes-lès-Valence
99 Sodexas, Exploitation de l'aire de service de Montélimar
32 Aires de services autoroute du Languedoc
80 Seraroute
94 Plm Belgium. Belgique
75 Soget Antilles. Antilles
[Tourisme, hôtellerie] (2)
CLUB MEDITERRANEE
50 filiales
10 Eurocom *, Européenne de communication; publicité (18 sociétés, groupe Havas)
20 Havas tourisme *
6,7 Air Tour *, Française de tourisme aérien
5 Air Club
32 Vacances 2000 *
2 Caution mutuelle des industries du tourisme *
79 Sogipa, Gérance immobilière et de participation
10 Grand garage Mogador
5,5 Immobilière Clichy Morel Pouchet
4,6 Chamonix Mont-Blanc; casino
75 Transp voyages
79 Klynos maintenance services
49 Etude réalisation Roche Béranger
97 Raymax
48 Plm Canada. Canada
14 Hôtelière Kish. Iran
3 Industrielle de Kish. Iran
3,1 Jeux de Kish. Iran
2 Commerciale de Kish. Iran
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45
Rouzaud 13 (Sigp) 86
20 Foncière du rond-point de la Muette
30 Chocolats et confiseries de luxe
Dragées Martial
PIEM ET GLASSON; abattoirs, conserves de viandes 19
50 Corps gras de l'Ouest
Fil. Rio Pel. Brésil
30 Rio Pel sa. Brésil
100 Sanor. Brésil
Gs Nord, Générale sucrière Nord 40
36 Groupement viandes salaisons
35 Loiseau Clamart
35 Recapet & Cie
Bétail Pyrénées, Sica 22 (Sigp)
Européenne de distribution 25
93,8
MOKTA
holding
[Fer, manganèse]
61 Andaluza de minas; mines de fer. Esp.
100 Assessotec, Assessoria partipacoe; fer. Brésil
47 Sacem, Chérifienne d'études minières; manganèse. Maroc
45 Cemo, Exploitation des mines d'Oumjerane. Maroc
17 Comilog, Minière de l'Ogooué; manganèse. Gabon
2,6 16 Sodafe *, Développement de l'Afrique équatoriale
90 Mines de Huaron; exploitat. au Pérou; mines de métaux non ferreux
5 Comina, Minière Andriamina. Madagasc.
[Granulats et matériaux de construction]
100 Sablières de Richardmenil
99 Auxiliaire de matériel des sablières de Richardmenil
83 17 Sablières d'Alsace
17 Sablières de Nancy *
49 51 Bayonnaise d'agrégats et de préfabrication
50 Sabliers Waeffler
50 Dunkerquoise des sables et graviers
80 Tuileries Huguenot Fenal
[Matériaux divers]
50 Sarca *, Argiles réfractaires et céramiques d'Aquitaine; argiles réfractaires
50 Société en participation; Spath-Fluor
5 Mineraria del Prédil. Italie
[Industrie]
83 Seprom-Thermonite; protection anticorrosive pour métaux
57 Planet Wattohm; calcium et magnésium nucléaires, matières plastiques
10 CGG *, Générale de géophysique; pétroles, gaz, ingénierie
25 Soficomex, Française pour le commerce
75 en Extrême-Orient



SUEZ par Compagnie financière de Suez
Standard oil cy of California USA par Amax inc. USA
Générale de Belgique par Hoboken Overpelt
Banque Worms
20,4
2,2
5,9
1,2
10,7
59
50
IMÉTAL holding
PÉNARROYA Société Industrielle
LE NICKEL - SNL Société Industrielle
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100 Technimet ; ingénierie, assistance technique
94 Carrier-Kheops ; prises électriques spéciales
19 Enercal, Energie. Nouvelle-Calédonie
22 Calédonienne d'entreprise et de travaux Nouvelle-Calédonie
100 Nickel Australia exploration. Australie
80 Nickel Australia. Australie
100 Nickel Services. USA
12 Moro Doniquel ; société commerciale. Brésil G.15
45 Nc Trading Co ; société commerc. USA 40
7,5 Seurec, Revêtement chimique *
2,1 Touristique Pacifique Sud. Polynésie
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10 Comurhex *, Conversion de l'uranium en métal et hexafluorure
22 Sicrel *, Industrielle de combustibles pour réacteurs électrogènes
7 Samipac *, Auxiliaire minière du Pacifique
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Sofrandi, Française de développement industriel 100
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›uis 1945, deux frères, Alain et Elie, sont à la tête de la banque avec Edmond, leur oncle, qui en sède la moitié; à la mort de celui-ci, en 1949, son fils, Guy, le remplace. Ce n'est qu'en 1968 la banque se transforme en banque de dépôts et devient la « Banque Rothschild », mais elle ›t pas cotée en Bourse et la famille Rothschild conserve directement, et indirectement par la Cie Nord, la propriété du capital et la direction de la banque.

ES COMPAGNIES DE CHEMIN DE FER : dès la mise en place du réseau de chemin de fer en 1838, at, qui a déjà effectué quelques travaux d'infrastructure, donne des concessions à des entrepri- privées, principalement des banques, qui émettent des titres dans le public. Une multitude de ›tes compagnies locales se développent jusqu'au début du second Empire. De nombreuses compa- s en difficultés sont absorbées. En 1857, seules six principales compagnies subsistent qui vont mettre de constituer des réseaux régionaux cohérents.

'armi elles, trois sont dominées par la famille Rothschild

La Cie du chemin de fer de Paris à Orléans (dont l'exploitation a démarré en 1843) qui a absorbé 1852 les Cies Orléans-Bordeaux et Tours-Nantes,

la Cie du chemin de fer du Nord (créée en 1845, elle a lancé en 1851 le premier emprunt obli- aire à intérêt fixe) qui a absorbé en 1852 Amiens-Boulogne;

Paris-Lyon-Méditerranée est le résultat de la fusion en 1857 de Lyon-Méditerranée (qui oupait déjà Lyon-Avignon, Avignon-Marseille, Montpellier-Sète, Nîmes-Montpellier et les mins de fer du Gard) et du Grand Central (créé en 1853).

.es Compagnies de chemin de fer ne tiennent que grâce aux travaux d'infrastructure effectués grande partie par l'État et aux subventions qu'il leur verse. La création de la SNCF, en août 7, permet aux compagnies privées (qui conservent 49 % du capital dont 36 % aux Rothschild) se dégager d'entreprises devenues peu rentables. La SNCF verse aux anciennes compagnies, ›ntrices d'actions amortissables, un intérêt fixe de 6 % sur les actions non amorties. En outre, elles servent des représentants au conseil d'administration (les Rothschild y ont actuellement deux es occupés par M. de Boissieu et J. Getten).

l'exerçant plus leur activité de chemin de fer, les trois compagnies se sont transformées en hol- es, la Cie du Nord devenant en 1968 la principale holding du groupe et Plm coiffant ses princi- s activités de tourisme et d'hôtellerie.

ES MÉTAUX NON FERREUX : au XIX[e] siècle, les Rothschild détenaient le monopole du mercure (qui utilisé pour le traitement de l'or) en Europe. A partir d'une participation qu'ils détenaient Penarroya (fondée en 1881), leur présence dans les non-ferreux s'élargit et se renforce princi- ment à partir de 1966. Imétal (holding créée en 1974) est orienté vers les activités minières avec kta racheté à Suez en 1971 (manganèse, matériaux de construction), le Nickel Sln (nickel) et ırroya (plomb, zinc, aluminium).

: groupe ROTHSCHILD ne s'arrête pas là. Une autre branche de la famille, est représentée Edmond de Rothschild qui a hérité en 1957 de l'immense fortune de son père, l'a développée en ınt en 1963 la Compagnie financière, holding constituant sa banque personnelle et à laquelle son ..hées une multitude de sociétés et de participations (Banque privée de Genève, Club Méditer Trigano, la Cie générale du jouet, des sociétés immobilières et des stations de sports d'hiver...)

Distendus depuis plusieurs décennies, les liens étroits qui unissaient la famille entre les diffé ›es places européennes ont été renoués depuis 1968 et surtout 1974-1975. Ce rapprochement se luit par des présences croisées aux différents conseils d'administration : Edmond de Rothschild e depuis 1975 à la Compagnie du Nord, tandis que David de Rothschild, fils de Guy, est entré Compagnie financière holding comme membre du conseil de surveillance; Jacques Thierry hschild par sa mère et marié à une Rothschild, y représentait jusqu'en 1974 le groupe *Br elle: ıbert*, allié de longue date aux Rothschild et siège depuis 1975 en son nom propre. Avant d'être

président du conseil et ministre de la IV[e] République, René Mayer, parent des Rothschild, avait
été directeur général de la banque, poste occupé plus tard et jusqu'en 1962 par G. Pompidou. Le
groupe Rothschild a des participations communes avec d'autres groupes, pour les activités dans les-
quelles ils sont spécialisés : deux avec les CHARGEURS RÉUNIS (Entrepôts et Gares frigorifiques
et Manutention de Basse-Seine), une avec DNEL (Somabami), plusieurs avec la SNCF et Havas
dans le tourisme et l'hôtellerie, avec la SCOA dans le commerce international; il reste lié à PUK pour
l'extraction de métaux non ferreux (huit filiales communes) et en particulier l'uranium; il a trouvé
avec ELF-AQUITAINE, un partenaire dans la Société Le Nickel, Sln.

3. L'organigramme fait apparaître principalement les activités du groupe qui se situent autour
de la Cie du Nord; celles de la holding Cie financière, étant en grande partie détenues à partir
de la Suisse, sont plus délicates à recenser.

La Compagnie du Nord constitue le centre du groupe; les six grands secteurs sont coiffés chacun
par une ou deux sociétés pilotes qui sont soit des holdings, soit des sociétés exerçant une activité.

4. 1968, avec la transformation de la Banque Rothschild en banque de dépôt et celle de la Cie du
Nord en holding du groupe a marqué un tournant dans l'histoire des Rothschild.

Deux éléments caractérisent aujourd'hui le groupe · une toile bien tissée de participations internes
et une stratégie d'alliances/concurrence qui le placent comme quatrième groupe financier en France
après SUEZ, PARIBAS et *EMPAIN*-SCHNEIDER.

La restructuration du groupe, intervenue depuis le début des années 1970 ainsi que le rapproche-
ment des dirigeants (Edmond et son empire d'une part, Guy et ses cousins avec la Banque et la Cie
du Nord d'autre part) ont conduit à un déplacement des intérêts du groupe, en particulier comme le
montre la répartition des actifs de la Cie du Nord :

	1969	1975
Banque et sociétés financières	13,5	31,3
Pétrole	20	3,4
Transports frigorifiques et alimentation	3,6	7
Hôtellerie et tourisme	1,5	4,1
Métaux non ferreux	26,6	17,3

L'élargissement de l'activité bancaire, très important puisqu'elle représente près du tiers des actifs.
a été marqué dans le cadre d'un rapprochement avec la Générale occidentale, par la prise de contrôle
de la Discount Bank France en 1975, ce qui a permis à la Banque Rothschild d'étendre son réseau
de guichets; en mars 1977, il est question que la Banque Rothschild acquière 20 % de la Continen-
tale de Banque.

En 1975, Imétal s'est renforcé dans les non-ferreux (en prenant une participation de 67 % dans la
Société américaine *Copperweld* (aciers alliés) et en devenant avec 10 %, le principal actionnaire du
groupe anglais *Lead Industries Group*. Il reste solidement implanté dans l'extraction d'uranium
avec la Cie Française des Minerais d'Uranium (Cfmu), où Imétal détient la majorité par l'inter-
médiaire de Mokta et de Penarroya.

5. L'internationalisation du groupe résulte avant tout des liens familiaux des Rothschild; les
Sociétés financières internationales « *Five arrows* », détenues par *Rothschild and Sons* (Londres), la
Banque Rothschild (Paris), la *Banque Lambert* (Bruxelles), la *Banque Privée SA de Genève* et la
Banque Heldring and Pierson d'Amsterdam jouent un rôle important dans des opérations financières
d'envergure mondiale.

VII - # GLOBAL BANKING

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Ingo Walter

New York Oxford
OXFORD UNIVERSITY PRESS
1997



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1

The Continuous Restructuring of Global Financial Services

Financial people know in their bones that their profession goes back a long way. Its frequent association with "the oldest profession" may occur simply because it is almost as old. After all, the technology of finance is very basic, requiring little more than simple arithmetic and minimal literacy, and the environment in which it applies is universal—that is, any situation that involves money, property, or credit, all of which are commodities that have been in demand since humankind's earliest days.

These financial commodities have been put to use to facilitate trade, commerce, and business investment and to accommodate the accumulation, preservation, and distribution of wealth by states, corporations, and individuals. Financial transactions can occur in an almost infinite variety, yet they always require the services of banks, whether acting as principal or as agent, and financial markets in which they may operate.

Banks, too, therefore have a long history—a history rich in product diversity, international scope, and, above all, continuous change and adaptation. Generally, the latter have been required to adjust to changed economic and regulatory conditions, which have on many occasions been drastic. On such occasions banks have collapsed, only to be replaced by others eager to enter this traditionally dangerous but profitable business. New competitors have continually appeared on the scene, especially during periods of rapid economic growth, opportunity, and comparatively light governmental interference. Competitive changes have forced adaptations too, and in general have improved the level and efficiency of services banks offer to clients, thereby increasing transactional volume. The one constant in the long history of banking is, perhaps, the sight of new stars rising and old ones setting. Some of the older ones have been able to transform themselves into players capable of competing with the newly power-

ful houses, but many have not. Thus the banking industry has much natural familiarity with economic restructuring.

It is doubtful, however, that there has ever been a time in the long history of banking that the pace of restructuring has been greater than the present. Banking and securities markets during the 1980s and 1990s in particular have been affected by a convergence of several exceptionally powerful forces—deregulation and reregulation, rapidly increasing competition and disintermediation, product innovation and technology—all of which have occurred in a spiraling expansion of demand for financial services across the globe. Bankers today live in interesting, if exhausting and hazardous, times.

Before these are examined in detail in the body of this book, a brief look at where we have come from should be useful in orienting ourselves to the present.

The Legacies of Global Banking

History reveals that both bankers and credit were plentiful and active in the ancient world. The recorded legal history of several great civilizations started with elaborate regulation of credit, such as the Code of Hammurabi, about 1800 B.C.E., where the famous Babylonian set forth, among other laws, the maximum rate of interest for loans of grain ($33\frac{1}{3}$ percent) and of silver (20 percent).[1]

In the Ancient World

Maritime trade abounded in the Mediterranean, and was already highly developed by the Greeks and the Phoenicians in 1000 B.C.E. Such trade involved long-distance shipment of commodities that were not locally available. Wherever trade occurred there had to be a means of payment acceptable to both sides, often obtained only through the good offices of a bank represented in both countries acting as a foreign exchange or bill broker.

Banks also helped the merchants, shipowners, and, later, public officials manage their money—sometimes by accepting it on deposit, sometimes by investing it for them in precious metals, stones, or the financial assets of the day. One could make money on money long before Alexander the Great.

By the time of the second century C.E., the Romans, then at their peak, had reorganized everything. Their power in the Mediterranean was absolute, peace reigned along its shores, piracy had been eliminated, trade flourished, and coinage was available throughout the Empire. Bankers and financiers prospered. Will Durant described them as follows:

> One of the streets adjoining the forum became a banker's row, crowded with the shops of the moneylenders and money-changers. Money could

> be borrowed on land, crops, securities, or g[illegible] for financing commercial enterprises or voyages. Cooperative le[illegible] the place of [commercial] insurance; instead of one banker completely underwriting a venture, several joined in providing the funds. Joint-stock companies existed chiefly for the performance of government contracts . . . they raised their capital by selling their stocks or bonds to the public in the form of *partes* or *particulae*, i.e. "little parts," or "shares."[2]

Under other circumstances this financial and commercial infrastructure might have grown to produce large international banking and trading companies of the kind that exist today. However, this didn't happen in the Roman period, largely, it seems, because the state, focused as it was on conquest and strict control of its empire through efficient administration, reserved for itself the principal financial powers in the society. As the state was the principal holder of capital, it became the principal dispenser of it too, lending large sums to the public, no doubt accompanied by some degree of corruption. Perhaps to preserve this convenient arrangement the Roman senate did not permit limited liability companies to be formed, thus keeping the private wealth of the Empire where it could best be controlled, among individuals.

In any case, large banks and commercial houses never emerged in the Roman days, though banking transactions themselves were plentiful on a small scale. This may have proved to be a contributing cause in the decline of the Empire, which along with political deterioration suffered acute economic decay. In the third century much economic difficulty was experienced, including the "great crash" of 259—after the Emperor Valerian had been taken captive—when markets collapsed and there were runs on banks in various parts of the empire.[3]

During the following century Roman economic decline was irreversible. Money and gold bullion were leaving the Empire in a great payments drain (they ended up in the Near East and in India). The population was declining and barbarians had to be brought in to replenish the dwindling supply of workers. Wealth had become highly concentrated at the top, and the nouveau riche had been suppressed. Society's savings were dissipated in consumption, military conquests were no longer being undertaken to resupply the state with plunder and slaves, and the Empire itself was breaking into two parts, with most of the action taking place in the eastern capital, Constantinople. What was left of the smart money moved there

After the Romans

The rest, sadly, we know, though one historian of the period, Harold Mattingly, a distinguished Cambridge University scholar and expert on Roman finance, makes a curious observation:

> The possibilities at the disposal of an all-powerful state are enormous, if it can [utilize] its resources in money, natural wealth and man power. If the Roman State could have been administered by a syndicate of men of

> modern capacity in banking and industry, there might have been rationalization on a magnificent scale. The State might have been able to meet all demands upon it and still have left its subjects to enjoy a very fair measure of prosperity. If it failed to realize all these possibilities, that will have been due to lack of knowledge as well as lack of interest.[4]

This thought brings to mind the Communist "empire" of our century, the collapse of which in the late 1980s might equally have been avoided if its rulers (like the Chinese) had understood free-market capitalism just a little bit better.

The Roman Empire collapsed in the fifth century. It was succeeded by the Byzantine Empire, which ruled in the eastern Mediterranean until the Arab conquests of the seventh century, which in turn diminished its scope and power.

In the western Mediterranean, absent the Romans, trade between the great ports and up the rivers leading into them was sporadic, again interrupted by pirates, and almost totally lacking in finance. After the Arab conquests, trade flourished but European trade did not. For all practical purposes it was in limbo for several hundred years. From the point of view of European bankers and financiers, these truly were the Dark Ages.

Where there was no trade, economic life collapsed back upon villages or counties. People consumed what they grew or raised or made, and no more. There were no surpluses beyond local needs, as there were neither markets to send them to nor any way to send them. No trade, no money, no finance—there was nothing to buy with money anyway. From this stagnant, landlocked condition the feudal system emerged, digging its roots deeply into European life.

Christian Capitalism

The Catholic Church appeared as a major social and economic force in Europe around this time. Founded when the brutality of the all-conquering Romans was at its peak, as an institution devoted to Christ's teaching of brotherly love and human equality before a single, caring, and redemptive God, the Church had profound influence in establishing the way people should live and treat each other. Naturally, people behaved much as before, but now they were told what was right and what was wrong according to a supreme being, and what would happen to them if they offended God and were not subsequently forgiven.

Christ was not just a prophet, the Church declared, he was the son of God, and therefore an extremely authoritative source for these new teachings, which instructed humankind in God's will. According to the teachings, everyone was a sinner, but sinners could be forgiven. People were supposed to treat their neighbors kindly, not to take advantage of them or climb over them on their way up. These teachings, as further interpreted by holy men over the years, came to establish the standards of Christian morality of good and evil, of right and wrong in everyday life. How one

had lived one's life would be judged at its end, and rewarded either in heaven or in hell. It was a powerful notion because of the hope it contained, especially for a future life better than the miserable one that most people then lived, and it spread throughout Europe.

The teachings of the medieval Church began with the idea that everyone should know his or her place and not unduly strive to improve it at the expense of others. Peasants should be happy enough as peasants. Upward mobility was not encouraged. One's future would be secure in the next life if one served God and trusted completely in Him. Kings, and their associated nobles, were those designated by God (through divine right) to rule. They should be obeyed and not interfered with (or revolted against).

The late Barbara Tuchman, in her fascinating report on the catastrophic fourteenth century—when a great famine, the Black Death, and the Hundred Years' War all fell in one century—notes that the Christian attitude toward commerce during the Middle Ages was "actively antagonistic":

> It held that money was evil, business was evil, that profit beyond a minimum necessary to keep the dealer alive was avarice (a sin), that to make money from the lending of money was usury (also a sin), and buying at wholesale and selling at retail was immoral and condemned by canon law. In short, as St. Jerome said: "A man who is a merchant can seldom, if ever, please God."[5]

Thus business people, merchants, and bankers were not only conceived in original sin, they were made to live in it daily, or otherwise be prohibited from just about everything that an ambitious person trying to get ahead might think to do.

However, as Tuchman also points out: "As restraint of initiative, this was the direct opposite of capitalist enterprise. It was the denial of economic man, and consequently even more routinely violated than the denial of sensual man.

The ways of humans, and those of heaven, were in stark opposition to one another. Violations would occur, naturally, but these would have to be atoned for, thus resulting in the enormous accumulation of wealth and financial power in the Church itself.

This took some time to happen, however. While Western Europe suffered the dismal period in the years from 500 to 1000 the conflict was moot, there being very little commerce to tempt people into sin. However, the Vikings began voyages in the eighth century, and for two hundred or three hundred years sailed and rowed their way up the rivers and into the lakes and seas of Europe, replanting the seeds of commerce and trade in their fearsome wake. After a while it became easier and much more profitable to trade with their counterparts than to slaughter them, and economic life in the north and west of Europe was reborn. At about the same time, Venice emerged as a principal entrepôt of trade and finance within southern Europe and between Europe and the Arab and Asian worlds.

By the beginning of the twelfth century the Crusades had begun; these military-religious expeditions were sent into the Holy Land of Palestine to reclaim Jerusalem for Christian society. Although they were never successful, these expeditions lasted two hundred years. They were guided by the religious order of the Knights of the Holy Temple of Jerusalem (called Knights Templar), which collected vast sums of money and property from well-to-do supporters in Europe. The Knights invested the money, making loans and buying and selling property throughout the Middle East. They evolved into possibly the first full-fledged modern bankers through careful development of their unique franchise.

Upward Mobility in the Middle Ages

With the rekindling of trade, of course, came opportunity for those seeking it—often, no doubt, those on the bottom rungs of society as it was then inflexibly cast.

A French historian of the Middle Ages, Henri Pirenne, repeats the story of one St. Godric of Finchale as an example of the way the nouveau riche were formed in the latter part of the eleventh century. Godric was born of poor peasant stock in Lincolnshire, and was forced, no doubt, to leave his parents' meager holdings to make his own way. He became a beachcomber, looking for wrecks, which were numerous at the time. Finding one, he put together a peddler's pack and set out on the road, where in due course he fell in with a band of "merchants" (possibly bandits). In time he amassed enough money to form a partnership with others, owning a ship engaged in coastal trade, which subsequently branched out into long-distance trade, merchanting, and banking. He became very rich, subsequently made his peace with God, and became a saint, no doubt leaving much of his fortune to the Church. Pirenne is emphatic that there were many Godrics operating at the time in Europe, though few among them were saints. They emerged as the bourgeoisie, and the commercial rebirth of Europe was soon an accomplished fact.

By the late twelfth century, business schools were in operation for those seeking a career in commerce to learn basic reading, bookkeeping, and arithmetic. By the thirteenth century, banking and finance had become quite sophisticated. Great textile factories were established in Flanders, furnished with wool from Britain and flax from Egypt, and the cloth was sold all over Europe with financing provided by expatriate Italian bankers speaking French. By the fourteenth century long-term credits were available, offered by merchants seeking to place their excess cash, or by bankers acting on their behalf.

Public authorities and noblemen were also borrowers as, for example, when they needed to buy grain during a famine or to outfit a regiment to be sent off to the Crusades. It became easier to borrow from moneylenders than to send one's plate to the mint.

The Italian Era

By the fifteenth century the mighty house of Medici reigned supreme in Italy, with its various branches throughout Europe acting as bankers, merchants in wool and cloth, dealers in spices and silks, goldsmiths, shipowners, deposit takers, and foreign exchange brokers. The influence of the Medicis and other houses like them reached into the papacy and the Church, and to princes and noble families all over the continent.

By this time the modus operandi of relations between merchants and the Church was reasonably well fixed, if complicated. To redeem his soul, the merchant would make contributions to the Church and its charitable works and alms houses, perhaps leaving a substantial part of his fortune to the Church upon his death. He would also suffer, as an ordinary cost of doing business, numerous fines and other charges for violating religious laws restricting commerce. He could purchase benefices or indulgences from the Church to expunge his guilt; before long literally hundreds of such benefices were offered for sale by the Church. He might also, as a lowly member of the bourgeoisie, have to renounce high social position in his community, though it is unlikely that Lorenzo de Medici ever did so.

On the other hand, having done these things to the extent required, he would be left alone to grow as rich as he was able, to likewise ascend in society and to leave most of his fortune to his heirs. It was a delicate balance perhaps, but one that was efficient for both the Church and the emerging middle classes. Each became mutually supportive of the other, despite the unbridgeable chasm of their intellectual and spiritual positions, and each prospered.[6]

The more developed Italian banking became during the Renaissance, the more it was exposed to the great risks of the times, mainly shifts in political and religious power and influence. These were in constant turmoil during the sixteenth century, and even the Medicis couldn't last. They were succeeded in the world of merchants, after the Reformation, by German and Swiss protestant bankers, many of whom developed ties in Britain, Holland, and France. The modern era developed in which commercialism and finance were substantially freed of the stern admonitions of the Church.

Financial Markets Appear

The Dutch moved especially quickly, and had set up organized markets for trading in financial instruments by 1602. The Amsterdam Stock Exchange followed in 1611, on which trading and speculation in securities of all types developed rapidly. The "tulip mania," in which the prices of bulbs temporarily reached extraordinary levels (one traded as high as £20,000), came in 1636. The Amsterdam market permitted various forms of short selling, puts and calls, and futures transactions in many different commod-

ities (tulip bulbs being one) and securities, including shares of the dominant and prosperous Dutch East India Company. Insider trading was first made an illegal practice in Amsterdam in the seventeenth century. The shrewd and profit-minded Dutch traders knew that insider trading was not in fact a victimless crime.[7]

By the beginning of the eighteenth century trading in bills of exchange and other financial instruments, including shares of a limited number of corporations, took place daily in the City of London in an area called Exchange Alley. This was the scene in 1720 of the "Great South Sea Bubble," in which thousands of British investors developed a mania for shares of a new company that would have monopoly rights to trade off the east coast of South America, the prospects for which were never much better than dim. Many people bought their shares on margin, an early example of financial leverage at work. The bubble burst, of course.

British Capitalism

During the latter part of the eighteenth century the American and the French revolutions had occurred, changing forever the way ordinary people would think about their lives, and how much they would come to value the freedom to take one's own chances and venture one's own capital on a better, more prosperous future. Also at this time Adam Smith's influential work, *The Wealth of Nations*, appeared and helped to ensure nearly a hundred years of prosperous laissez-faire economic policy in Great Britain.

Britain's defeat of Napoleon at the battle of Waterloo in 1814 set the stage for nearly a century of economic dominance. It also was the occasion for the House of Rothschild to rise from obscurity to supreme prominence from the great killing it made in the market by getting the jump on the outcome of the battle and the defeat of Napoleon, and then wrong-footing everybody else on the Exchange by at first selling, then buying large amounts of British paper. The Rothschilds had earlier amassed a smaller fortune in buying and selling commercial bills from both sides during the war. Neither of their activities was illegal or considered improper at the time, though both would be condemned today.

With the end of the Napoleonic era came a great era of capitalism, nourished by the industrial revolution and the ascendancy of "the people" in Europe and America. The result has been that since 1800, the general growth in the economic well-being of those people affected has been several times that which had been experienced over the entire four thousand years that preceded it. Indeed, in those areas of the world still ruled by conquerors or by religious groups, not much general improvement has been experienced. And in those areas where old regimes have been toppled by peoples' (i.e., communist) revolutions and capitalism was stamped out, some, but far less, growth has occurred, a fact that has become painfully obvious in recent years.

The Roots of Modern Banking

Our modern economic and financial heritage, then, begins with the coming of democratic capitalism, around the time of Adam Smith. Under this system the state does not prevent or discourage anyone willing to work hard enough, and who also has access to capital, from becoming a capitalist himself.

A hundred years after Adam Smith, England was at the peak of its power. Politically, it ruled 25 percent of the Earth's surface and people. The British economy was by far the strongest and most developed in the world. Its competitors were still partly asleep. France was still sorting itself out after a century of political chaos and a war with Prussia that had gone wrong. Germany was just starting to come together politically, but still had quite a way to go to catch up with the British in industrial terms. The rest of Europe was not all that important. There was a potentially serious problem, however, from reckless, often irresponsible, competition from America, which fancied itself a rising economic power, but otherwise the horizon was comparatively free of competitors. British industry and British finance were very secure in their respective positions of world leadership.

English financial markets had made it all possible, according to Walter Bagehot, the editor at the time of *The Economist*, who published a small book in 1873 called *Lombard Street* that described these markets and what made them tick. England's economic glory, he suggested, was based on the supply and accessibility of capital. After all, he pointed out, what would have been the good of inventing a railroad back in Elizabethan times if there was no way to raise the capital to build it? In poor countries there were no financial resources anyway, and in most European countries money stuck to the aristocrats and the landowners and was unavailable to the market. But in England, Bagehot boasted, there was a place in the City of London—called Lombard Street—where "in all but the rarest of times, money can be always obtained upon good security, or upon decent prospects of probable gain." Such a market, Bagehot continued, is a "luxury which no country has ever enjoyed with even comparable equality before."

However, the real power in the market, Bagehot went on to suggest, is its ability to offer the benefits of leverage to those working their way up in the system, whose goal is to displace those at the top. "In every district," Bagehot explained, "small traders have arisen who discount their bills largely, and with the capital so borrowed, harass and press upon, if they do not eradicate, the old capitalist." The new trader has "obviously an immense advantage in the struggle of trade:"

> If a merchant have £50,000 all his own, to gain 10 percent on it he must make £5,000 a year, and must charge for his goods accordingly; but if another has only £10,000 and borrows £40,000 by discounts (no extreme instance in our modern trade), he has the same capital of £50,000 to use, and can sell much cheaper. If the rate at which he borrows be 5 percent,

> he will have to pay £2,000 a year [in interest]; and if, like the old trader he makes £5,000 a year, he will still, after paying his interest, obtain £3,000 a year, or 30 percent on his own £10,000. As most merchants are content with much less than 30 percent, he will be able, if he wishes, to forego some of that profit, lower the price of the commodity, and drive the old-fashioned trader—the man who trades on his own capital—out of the market.

Thus, the ambitious "new man," with little to lose and access to credit through the market, can earn a greater return on his money than a risk-averse capitalist who borrows little or nothing. The higher return enables the new man to undercut the other man's prices and take business from him. True, the new man may lose on the venture and be taken out of the game, but there is always another new man on his way up who is eager to replace him. As the richer man has a lot to lose, he risks it less, and thus is always in the game, continually defending himself against one newcome or another until finally he packs it in, retires to the country, and invests in government securities instead.

"This increasingly democratic structure of English commerce," Bagehot continued, "is very unpopular in many quarters." On one hand, he says, "it prevents the long duration of great families of merchant princes . . . who are pushed out by the dirty crowd of little men."

> On the other hand, these unattractive democratic defects are compensated for by one great excellence: no other country was ever so little "sleepy", no other was ever so prompt to seize new advantages. A country dependent mainly on great "merchant princes" will never be so prompt; there commerce perpetually slips more and more into a commerce of routine. A man of large wealth, however intelligent, always thinks, "I have a great income, and I want to keep it. If things go on as they are, I shall keep it, but if they change I *may* not keep it." Consequently he considers every change of circumstance a bore, and thinks of such changes as little as he can. But a new man, who has his way to make in the world, knows that such changes are his opportunities; he is always on the lookout for them, and always heeds them when he finds them. The rough and vulgar structure of English commerce is the secret of its life. . . .[8]

In 1902, a young American new man named Bernard Baruch took Bagehot's essay to heart and made himself the first of many millions in a Wall Street investment pool, buying control of a railroad on borrowed money.[9] The United States had come of age financially around the turn of the century, and Wall Street would soon displace Lombard Street as the world's center of finance.

The Rise of the Americans

Early in the century, J. P. Morgan organized United States Steel Corporation, having acquired Carnegie Steel and other companies in a transaction

valued at $1.5 billion, an amount worth perhaps $20 billion today. This was the largest financial deal ever done (until the RJR-Nabisco transaction in 1989) and it occurred in 1902 during the first of four merger booms to take place in the United States. Each of these booms was powered by different factors, but in each, rising stock markets and easy access to credit were major contributors.

By the early 1900s New York was beginning to emerge as the world's leading financial center. True, many American companies still raised capital by selling their securities to investors in Europe, but they also sold them to American investors. These investors, looking for places to put their newly acquired wealth, also bought European securities, perhaps thinking they were safer and more reliable investments than those of American companies. By the early years of the twentieth century European issues in the New York market were commonplace. This activity proved especially beneficial when World War I came—both sides in the conflict sought funds from the United States, although the Allied Powers raised by far the larger amounts.

After the war, American prosperity continued while Europe's did not. Banks had a busy time, raising money for corporations, foreign governments, and investment companies and making large loans to investors buying securities. Banks were by then "universal," that is, they were free to participate in commercial banking (lending) and investment banking, which at the time meant the underwriting, distribution, and trading of securities in financial markets. Many of the larger banks were also involved in a substantial amount of international business. There was trade to finance all over the world, especially in such mineral-rich areas as Latin America and Australia. There were securities new issues (underwritings) to perform for foreign clients, which in the years before the 1929 crash aggregated around 25 percent of all business done. There were correspondent banking and custodial (safekeeping) relationships with overseas counterparts, and a variety of financial services to perform for individuals, with respect to both foreigners doing business in the United States and the activities of Americans abroad.

The stock market crash in 1929 was a global event—markets crashed everywhere all at the same time, and the volume of foreign selling orders was high. The Great Depression followed, and the banks were blamed for it, although the evidence has never been strong to connect the speculative activities of the banks during the 1920s with either the crash or the subsequent depression of the 1930s. Nonetheless there were three prominent results from these events that had great effect on American banking. The first was the passage of the Banking Act of 1933 that provided for the Federal Deposit Insurance system and the Glass–Steagall provisions of the Banking Act, which completely separated commercial banking and securities activities. Second was the depression itself, which led in the end to World War II and a 30-year period of banking being confined to basic,

slow-growing deposit taking and loan making within a limited local market. And third was the rising importance of the government in deciding financial matters, especially during the postwar recovery period. There was little for banks or securities firms to do until the late 1950s and early 1960s.

By then, international business had resumed its rigorous expansion and U.S. banks, following the lead of First National City Bank (now Citicorp), resumed their activities abroad. The successful recovery of the economies of Western Europe and Japan led to pressures on the fixed-rate foreign exchange system set up after the war. The Eurodollar market followed, then the Eurobond market and the reattraction of banks and investment banks to international capital market transactions.

Global Banking Emerges

Next came the 1971 collapse of the fixed exchange rate system in which the dollar was tied to gold. Floating exchange rates set by the market replaced this system, obviating the need for government capital controls. In turn this led to widespread removal of restrictions on capital flows between countries, and the beginnings of the global financial system that we have today.

This system, which is based on markets setting prices and determining the flow of capital around the world, has drawn in many new players—both users and providers of banking and capital market services. Competition among these players for funds, and the business of providing them, has greatly increased the stakes of individual institutions and indeed the risks of the banking and securities businesses.

The effects of competitive capitalism have been seen and appreciated during the past decade as they have not been since 1929. The 1980s witnessed further rounds of deregulation and privatization of government-owned enterprises, indicating that governments of the industrial countries around the world have found private-sector solutions to problems of economic growth and development preferable to state-operated socialist programs. Thus there have been radical changes in Europe, where massive deregulation of financial markets in the United Kingdom and several other countries has occurred, and where the Single-Market and Economic and Monetary Union initiatives of the European Union (EU) promise similar effects on European business and finance. Deregulation in Japan has freed vast sums of capital to seek investment overseas and to create an active global securities market in Tokyo.

Most financial businesses are now effectively global. Banking and capital market services have proliferated, and numerous new competitors have emerged on the scene—many of which are not banks at all. Indeed some, like General Electric Capital Services (GECS), are customers of banks. New regulations are constantly being introduced and old ones changed. Telecommunications provides an ease of access to information that sepa-

rated banks from their clients, pushing much of today's business into trading markets in which advice and service are less valuable than the latest quotation posted by securities and foreign exchange traders. It is a time of great and widespread change, affecting everyone. It is a time of massive restructuring for all financial service firms.

This book attempts to wade into the chaos and confusion of today's global banking and capital market environment and strip out the central parts of it, so that each can be examined separately. The purpose is to gain a better understanding of the evolution of international banking and finance, the services represented in today's market, the competitive processes involved, and the impact these have on prominent public policy issues. By treating the services of commercial banks and investment banks separately we are not acknowledging that these are or should be separated—we are simply using a traditional distinction for examining what these services are and how competition works in each.

Evolving Competitive Strategies

Our main emphasis is on the issues of formulation, implementation, and evaluation of competitive strategies (that is, strategies that succeed because they are ultimately shown to be competitive) of banks and capital market institutions. Each financial services business will have to reformulate its own global competitive strategy over the coming years. There is no single strategy that will work for all. Indeed, there are so many different types of firms, from different countries and possessing different strengths and weaknesses, that an enormous variety of different strategies is likely to result. Our effort in this book is aimed at making clear the process of strategic determination in this period of enormous change, with its inescapable requirement for rethinking how individual business fits into the totality of global finance—rending that process more understandable to students of the subject and to practitioners.

Notes

1 Sidney Homer, *A History of Interest Rates*, 2 ed. New Brunswick, N.J.: Rutgers University Press, 1977, p. 5.

2. Will Durant, *Caesar and Christ*. New York: Simon & Schuster, 1948, pp. 79–80.

3. Harold Mattingly, *Roman Imperial Civilization*. Garden City, N.Y.: Doubleday Anchor Books, 1957, pp. 225–47.

4. Ibid., p. 241.

5 Barbara W. Tuchman, *A Distant Mirror*. New York: Alfred A. Knopf, 1978, pp. 37–38.

6. Henry Pirenne, *Economic and Social History of Medieval Europe*. London: Routledge & Kegan Paul, 1936, pp. 47–168.

7. Joseph de la Vega, *Confusions de Confusiones* (1688), reprinted in *Publications Number 13* of the Kress Library of Business and Economics, Harvard Business School, 1957; from E. C. Bursk et al. (eds.), *The World of Business*, Vol. 2. New York: Simon & Schuster, 1962, pp. 794–97.

8. Walter Bagehot, *Lombard Street, A Description of the Money Market*. London: Henry S. King, 1873, pp. 1–20.

9. Bernard M. Baruch, *Baruch: My Own Story*. New York: Henry Holt, 1957, pp. 165–76.

I

INTERNATIONAL COMMERCIAL BANKING



2

International Commercial Lending

International lending has changed dramatically over the years. Major, highly rated corporations, public-sector enterprises, and governments have largely migrated to the capital markets, where their own securities command terms that are competitive (and often superior) to those banks can provide. This has largely supplanted straight bank-to-client lending, and even smaller and less highly rated borrowers have found it possible to tap the capital markets using various kinds of credit and liquidity backstops and asset-backed structures. And as a result of the less-developed country (LDC) debt crisis of the 1980s, a major class of sovereign borrowers disappeared—borrowers for whom the capital markets have traditionally been closed—with the exception of forced loan rescheduling and new-money packages in the 1980s as the debt crisis wore on, and some renewed interest in banking lending to LDCs (emerging market borrowers) more recently.

Nevertheless, international bank lending continues as an important part of global financial markets. In times of financial instability, the capital markets tend to shrink and in some cases even disappear as viable sources of finance, and borrowers flock back to the banks. Many creditworthy corporate borrowers, for example, maintain sizable bank lines even in the best of times, partly to make sure the banks are there when and if they are needed. And for certain kinds of financings, such as short-term lending to finance merger, acquisition, and leveraged buyout transactions, as well as longer-term lending on project financings, there are no good substitutes for traditional bank loans. This may be because the borrower cannot be sure precisely when the funds will be required or when they can be repaid out of the proceeds of stock or bond issues or asset sales, or because the transaction is likely to encounter significant and unanticipated developments over its life that requires a form of financing where the added flexibility is worth more than the added cost. Bank lending provides one of

the few alternatives for close borrower-lender contact and monitoring, and therefore maintains significant advantages in contracting and information costs.

Commercial Lending Facilities

There are various ways to classify international bank lending to corporate, government, and other types of borrowers.

First, a bank may *lend to local clients out of branches or affiliates* in foreign countries in which it operates, funded by local-currency deposits or by local money-market borrowings. This is purely local business, competing mainly with local banks. Foreign-based banks normally have to compete purely on price or by focusing on a specific market niche—special industry expertise, for example. Foreign banks lending in local markets may also focus on affiliates of multinational companies based in their own home countries, or on financing international trade transactions. It nevertheless remains essentially "domestic lending abroad," and the only thing international about it is the transfer of product or credit know-how, or client relationships, from the parent organization or from affiliates in third countries.

Second, a bank may undertake *direct cross-border lending to clients located in another country.* Such loans appear to be relatively minor in importance. They focus on special kinds of transactions as part of close bank relationships to particular clients, including foreign affiliates of multinationals; as part of workouts of earlier troubled loans; or as part of international private banking relationships (see chapter 7). In many cases such loans take the form of syndicated Eurocurrency facilities (discussed below).

Lending facilities, whether direct or syndicated, can take a number of forms. There are "revolving credit agreements" (called "revolvers"), which permit clients to borrow, on demand, up to a certain maximum amount over an agreed period under an agreed interest formula. In return the bank earns a commitment fee for standing ready to lend, whether or not such lending actually occurs. These are usually "committed facilities," and the commitment is legally enforceable and covered by appropriate legal documentation. Committed facilities require the same kind of careful credit analysis as actual loans, especially since, for some clients, committed facilities will be taken down only when capital market financing is unavailable or more expensive. Such facilities often take the form of "backstop lines," which rating agencies like Moody's and Standard & Poor's require issuers of commercial paper to have in place in order to assure investors that the liquidity will be there when the paper matures. Borrowers may also arrange for "uncommitted facilities," which are not legally enforceable and hence involve lower fees. Clients may find these attractive because of the lower cost if they believe there is little likelihood of difficulty in accessing financial markets in the foreseeable future.

In the course of ordinary credit relationships with clients, banks will have in place limits on the amount of lending exposure they are willing to incur, sometimes called "undisclosed, unadvised guidance lines," which may be increased or decreased at the bank's own discretion on the basis of changing circumstances.

Whether committed or uncommitted, international commercial lending facilities may be associated with a range of other banking products, especially those involving interest-rate or exchange-rate protection. Examples include "forward-rate agreements" (FRAs), which permit a client to lock in an interest rate today for a loan to be taken at some future date; interest-rate caps or collars; and currency swaps, as discussed in chapter 10. The bank, in turn, will hedge these transactions in the market and keep whatever spreads or fees it is able to earn on these collateral services.

Bank Financing of Foreign Governments and Government Entities

Lending to units of foreign governments took on major importance in the 1970s. The reasons include:

- The rapid growth of balance-of-payments financing needs on the part of national governments, particularly after 1973
- The use of government agencies as intermediaries to secure external financing for a wide variety of borrowers domestically
- Major borrowing needs on the part of governmental and quasi-governmental entities like power authorities, sewage systems, trading companies, airlines, and shipping companies and the like, both at the national and state-local level
- Active participation of governments as owners of manufacturing and trading companies, as well as financial houses and banks
- The growing use of government guarantees to facilitate foreign borrowing on behalf of private ventures

Sovereign lending collapsed after the debt crisis in the early 1980s and the migration of Organization for Economic Cooperation and Development (OECD) government entities to the global bond markets, but has revived gradually in the 1990s.

Government borrowing abroad may be undertaken by a national entity charged with managing the country's external finance, for example, its central bank, monetary authority, ministry of finance, or similar institution. It may also be undertaken by other government-owned authorities or corporations, often called *parastatals*, although such external borrowing usually must have the approval of a coordinating agency such as the central bank.

Balance-of-payments borrowing is undertaken by countries with current account payments deficits that are not offset by private capital in-

flows, resulting in a balance-of-payments deficit. The proceeds of external borrowing by the country's monetary agency are often used to intervene in foreign exchange markets to support the external value of the national currency, the exchange rate. Balance-of-payments borrowings may be *seasonal* or *cyclical,* in response to periodic underlying variations in export receipts and import disbursements or capital flows, or they may be *structural* due to an essentially permanent shock (e.g., a major drop in export prices) to which it will take time to adjust. Such borrowings may also be *chronic* as a result of a more or less permanent excess of domestic absorption over production, capital flight due to lack of confidence in the country's future, and similar factors.

Seasonal and cyclical balance-of-payments borrowing is essentially self-correcting and finds its everyday parallels in corporate working-capital borrowing and personal finance. To the extent that such needs cannot be handled from a country's own reserves, short-term borrowings under bank credit lines, reviewed periodically, may be an alternative method of handling. Structural balance-of-payments borrowing is designed to ease the pain of adjustment to new economic realities and can also be fully justified provided the necessary adjustment actually comes about within an acceptable time frame. This is not the case with a country essentially living beyond its means and engaging in chronic external borrowing, its government unable or unwilling to take the steps needed to restore balance via domestic macroeconomic or exchange rate policies, ultimately heading for a rough landing for debtors and creditors alike.

Fiscal borrowing concerns external financing to cover budgetary deficits, and is linked directly to the balance of payments and its financing. In many cases fiscal borrowing involves short-term loans made in anticipation of government receipts, and therefore it tends to be self-liquidating.

Development borrowing involves the financing of infrastructure projects—schools, hospitals, roads, railways, airports, port facilities, communication networks, power grids, sewer systems, public housing, and a variety of others. Some projects are direct producers of foreign exchange (generating exports or saving on imports), while others are not, as discussed in chapter 3. As distinct from development *project* lending, *program* lending may involve literacy training or vocational education, for example, with potentially far-reaching domestic and international consequences that are usually extremely difficult to forecast.

Loan Syndication

As noted, most major international lending facilities are *syndicated.* In simple form, a syndicated credit facility involves the combined activities of a number of banks in the assembly of a relatively large loan to a single borrower under the direction of one or several banks serving as lead managers.

The borrower has the advantage, under such an arrangement, of being able to raise a larger sum than any single bank would be willing to lend, at substantially lower cost and more efficiently than the same amount of borrowing from multiple sources on its own. Moreover, the borrower enters the market fewer times and thus may improve its future access to financing in less jeopardy. Borrower "visibility" is enhanced by major syndications involving a large group of banks, possibly making future financings easier.

The lenders have the advantage of:

- Better diversification of their asset portfolios
- Participation in lending they might not otherwise have access to
- Cooperation with multiple banks (often home based in a number of different countries) having greater collective expertise and information than any single bank
- Reduced risk of borrower default due to the enhanced penalties of such action in terms of limited future access of the borrower to financial markets
- Certain legal protection inherent in syndicated loan agreements

Banks also find participation in a variety of syndicated loans an efficient way to obtain necessary expertise, market exposure, and visibility without incurring unacceptable financial exposure.

Essentially, international syndicated loan facilities represent a cross between debt underwriting and traditional commercial bank lending. They open medium-term financing opportunities to many borrowers who might not otherwise be able to obtain credit on comparable terms through the international or domestic securities markets, private placements, and other financial vehicles.

Historically, international syndications of medium-term credit facilities began in the late 1960s, when changes in interest-rate levels and volatility increased the attractiveness of major financings on floating-rate terms, as opposed to fixed-rate bond issues, and borrowers' needs outstripped the lending capabilities of individual banks. Their antecedents include the long-standing practice of multibank term lending to corporate customers in the United States, priced at or above the domestic prime lending rate. During the 1970s and 1980s, somewhat over half of all medium- and long-term borrowings in international capital markets, well over 80 percent of such borrowings by developing countries, and almost all such borrowings by centrally planned economies were in the form of syndicated loans. While LDC lending and project financings took up the bulk of syndications in the 1970s, mergers and acquisitions (M&A) and leveraged buyout (LBO) syndications took their place in the latter part of the 1980s. Both continue at far lower levels in the 1990s.

The geographic center for syndicated lending has always been the City of London. Much smaller centers have developed to service the Asian mar

kets in Hong Kong and Singapore. New York has played a relatively minor role. The actual booking of syndicated loan participations is done as well in the various offshore banking centers like Luxembourg.

The Syndication Process

Borrower contact—with a national government agency, an electric power authority seeking to finance a significant capacity expansion, a corporation seeking a standby facility for a major acquisition, perhaps a national development bank intending to take up a large sum internationally which it will then on-lend in smaller amounts to domestic enterprises, or anyone else—is maintained routinely by lending officers of major international banks. The better the "relationship" between the bank and the potential borrower, the better the bank's information about the client's evolving financing needs and the greater its chances of playing a significant role in meeting those needs.

In seeking syndication business, banks rely on:

- their own branches, representative offices, or other affiliates maintaining contact with the prospective borrower
- referrals from other units of the bank, or referrals through established corporate and other client relationships
- referrals from other banks anxious to render a service to their own clients, yet not in a position to take leadership position themselves, with whom good relations have been maintained
- direct solicitations from potential borrowers or, in the event of joint lead-managed syndications, other banks
- approaches by investment banks acting as advisers to borrowers, one of whose functions is to facilitate capital-market access through introductions to a competent bank active in loan syndication

Knowing the borrower and conditions in international lending markets, a prospective *lead bank* will carefully draw up a proposal to arrange the loan, thereby seeking a *syndication mandate*. The proposal will specify pricing, terms, fees, and other pertinent aspects of the loan and will indicate whether the syndication will be *fully committed*. If so, the bank will undertake to provide the full amount of the loan to the borrower according to the terms of the mandate, whether or not it is successful in its efforts to interest other banks in participating in the loan. If the syndication is *partially committed*, the bank will guarantee to deliver part of the loan, with the remainder contingent on market reaction to the loan. In a *best-efforts syndication* the borrower will obtain the funds needed only if sufficient interest and participation can be generated among potential participating lenders by the good-faith efforts of the bank seeking the mandate.

By this time, or shortly thereafter, the bank may have brought in one or more co-lead managers to help with the syndication and share in the

underwriting commitment, especially if the amount to be raised is very large or the deal is rather complex. Generally, the larger the loan, the larger tends to be the management group involved, including several *lead managers, managers,* and *co-managers,* each group accepting a different share of the underwriting responsibility, and several "brackets" of *participants,* whose role is usually confined to supplying funds.

The terms of the formal letter seeking the mandate will follow extensive discussions with the borrower and will be carefully tailored to its needs as well as market conditions. It will have to be fully competitive with other banks going after the same mandate. The mandate letter will also specify *exclusivity* of the mandate, and repeatedly note the leading roles the mandated bank is to perform in the syndication.

There are a variety of negotiable trade-offs, as between the tenor and size of the loan, drawdown schedule, grace period, amortization schedule, spread, fees, tax issues, borrower information, and legal covenants. In seeking a mandate, the prospective lead bank must strike a balance between what the borrower wants and what the market can live with, that is, what will result in a successful syndication—always keeping a watchful eye on what competitors may propose. Sophisticated borrowers will often accept "second best" proposals from highly responsible and prestigious lead banks over more "imaginative" or lower-cost proposals from aggressive competitors if they feel that this will better serve their long-term standing in the market. Still, the tolerance for less than fully competitive bids is generally very low.

If the borrower decides to go ahead with the syndication, the mandate will be awarded to one of the competing banks or to joint bidders, who then become lead manager(s) of the syndicate. Suppose a single bank has won a mandate on a $100 million fully committed syndication, and the lead bank wishes to keep $15 million of this in its own portfolio—its *target take.* It will then have to find a way to *sell down* the remaining $85 million to other banks. To do so it will have to develop a *syndication strategy* that will successfully raise the required sum yet call for minimum sharing of the management fee that will be paid or of the visibility the bank attracts for putting the loan together. Several other banks may have to be asked to manage or co-manage the loan jointly, however, and thus be allocated a portion of the total funds to be raised. Part of these funds they will take into their own portfolios in turn and the rest they will sell down to other syndicate participants, in return for a share of the management fee.

The lead bank is generally expected to take a share in the loan that is at least as large as that of any other lender. The management group (lead manager(s), managers, and co-managers) may retain as much as 50 to 70 percent of the total loan for their own portfolios.

The syndicate will be put together by the lead manager and the management group who will send offering faxes to banks around the world followed up quickly with elaborate written documentation and personal discussions.

Deciding which banks to invite into the syndicate is a major part of a lead bank's task and will help determine its strategy. It must be able to judge the invitees' country and industry exposures, past client relationships, degree of sophistication in syndicated lending (especially in complex deals), its own relationships with invitees, and similar factors that will determine individual banks' receptivity to the deal. In some cases the borrower will express a preference as to which banks should (and should not) be invited to participate. Contacting 200 or 300 banks to obtain twenty or thirty ultimate participants is not unusual. Banks invited to participate will usually decline, accept, or request further information on the basis of the offering fax, and careful track will be kept of the responses by the lead manager or management group.

If there are several lead managers, one of them is assigned to keep track of responses from each of the banks that have been approached. This can be rather complex when several hundred banks in a variety of countries are involved, with responsibility for contacting them divided among members of the management team.

Meanwhile, the lead manager will work on preparation of an *information memorandum*, in which the borrower will disclose financial and economic—and sometimes historical and political—facts pertinent to current and projected creditworthiness. This, together with a *term sheet* restating the conditions of the loan, will be sent to interested banks and carefully prefaced by an emphatic disclaimer of all responsibility for its content on the part of the lead manager. A disclaimer is necessary to avoid possible legal liability in case of default or other problems with the loan that may arise later. The information memorandum, although prepared by the borrower, will be carefully checked for accuracy and completeness by the lead bank(s).

If things go well, the loan will be fully subscribed. If it is oversubscribed, participations will either be *prorated* among the interested banks, or occasionally the total amount of the loan will be increased at the option of the borrower. In the latter case, however, prospective syndicate members may wish to consider whether they are comfortable with a larger loan to the borrower concerned. An oversubscribed syndication may well result in an unhappy borrower (who thinks the interest rate or fees are too high) or unhappy banks (who are unable to get as much of the loan as they were initially offered). The competence of the lead manager is called into question by both sides.

If insufficient funds are raised, the borrower will have to make do with less if the syndication is on a best-efforts basis, or the banks in the management group will have to book the balance themselves and thereby exceed their target take if the syndication is fully committed. In such a case the syndication is considered "unsuccessful," with potentially serious adverse consequences for the future prospects of the borrower as well as the lead manager(s) in the market. Again, the competence of the lead manager will be called into question.

Both undersubscribed and oversubscribed deals must be avoided, and

this is why tailoring the terms of the loan to perceived market receptivity—accuracy in pricing—is such an important determinant of competence in loan syndication leadership. Particularly desirable participations are those that present a favorable risk/return profile, both in comparison with other loans available in the market and with those offered in the months immediately ahead. Lead banks with a track record of completing such deals are rewarded by further leadership roles and, obviously, adding attractive paper to their own portfolios.

Along the way, a *loan agreement* will be drawn up; this spells out the rights and obligations of all parties to the deal, governing law, and related matters. Drafting of the loan agreement, especially in complex deals, may be initiated during the syndication process, and various possible points of contention will be discussed with the borrower. Even after the successful completion of syndication, work on the loan agreement may continue until all points are agreeable to both sides. No bank is finally committed in a loan syndication until it has agreed to the terms of the loan agreement. If no consensus can be reached on a point a bank has identified as being vital, that bank can gracefully withdraw from the syndicate. However, most of the time the loan documentation seems to be sufficiently standard that preparation time and acceptability questions are relatively minor problems. Selection of competent legal counsel in syndicated loans is of great importance in this regard.

Definition of the purpose of a loan in the loan agreement may or may not be helpful. On the one hand, it is the creditworthiness of the borrower as a whole that matters, not what it intends to do with a specific block of funding. Excessive specificity in a loan agreement may unintentionally throw the loan into default, to the chagrin of borrower and lender alike. On the other hand, the purpose of a loan may be a good tip-off as to how the borrower is likely to conduct its affairs in the future, or to its current financial condition, and could therefore figure prominently in an overall creditworthiness assessment.

Publicity will eventually have to be arranged and a signing ceremony held (and arrangements made for signing of the loan agreement for those banks not present), usually including formal lunches and dinners. Finally, an *agent bank* will be appointed early in the game, whose job it will be to run the books on the loan—a critical and influential role that the lead manager will usually want to keep for itself.

Where multiple banks form the lead management group, they will split the main jobs between them: (1) preparation and distribution of the information memorandum, (2) keeping track of syndication responses from potential participants, (3) negotiation of the loan agreement, (4) arranging for the signing, (5) handling of publicity, and (6) taking on the agency function. Those tasks providing the closest contact with the borrower or the greatest visibility in the market are most sought after, and will generally go to the dominant members of the syndication group.

Figure 2.1 depicts two *tombstones*, announcements of typical full syndications that represent a standard aspect of publicity on a deal. Note the

May 1994
This announcement appears as a matter of record only



guaranteed by

Household International, Inc

£236,000,000

Revolving Credit Facility

arranged by

The First National Bank of Chicago — Lloyds Bank Capital Markets Group

Lead Managers

Commerzbank Aktiengesellschaft
London Branch

The First National Bank of Chicago

Lloyds Bank Plc

Royal Bank of Canada

The Royal Bank of Scotland plc

Managers

ABN AMRO Bank N.V.

The Bank of Nova Scotia

Banque Nationale de Paris p.l.c.

Bayerische Landesbank Girozentrale
London Branch

The Fuji Bank, Limited

The Mitsubishi Trust and Banking Corporation

N M Rothschild & Sons Limited

The Sakura Bank Limited

The Tokai Bank, Limited

Union Bank of Switzerland

Co Managers

Bank of Ireland International Finance Ltd

Brown, Shipley & Co Limited

The Chuo Trust and Banking Company, Limited

Dresdner Bank AG
London Branch

Mellon Bank, N.A.

The Sumitomo Bank, Limited

Yamaichi Bank (U.K.) Plc

Facility Agent
Royal Bank of Canada Europe Limited





Figure 2-1. Sample tombstones.



The Dow Chemical Company
$3,000,000,000
Revolving Credit Facility

Agent:
Citibank, N.A.

Co-Agents:
ABN AMRO
Bank of America NT&SA
The Dai-Ichi Kangyo Bank, Ltd.
Union Bank of Switzerland

Lead Managers:
Barclays Bank PLC
Credit Lyonnais
Royal Bank of Canada

Provided By:

Banque Nationale de Paris • Morgan Guaranty Trust Co.
Societe Generale • The Sumitomo Bank Limited
Swiss Bank Corporation • The Toronto Dominion Bank

Bank Brussels Lambert • The Bank of Nova Scotia
The Bank of Tokyo Trust Company • Bankers Trust Company
Berliner Handels-Und Frankfurter Bank • Canadian Imperial Bank of Commerce
Credit Suisse • Dresdner Bank AG • The First National Bank of Chicago
The Fuji Bank Limited • Generale Bank N.V. • Kredietbank N.V.
Mellon Bank, N.A. • NBD Bank, N.A. • Security Pacific National Bank
Westpac Banking Corporation

Banca Commerciale Italiana • Banco Bilbao Vizcaya • The Bank of New York
Bayerische Landesbank Girozentrale • Bayerische Vereinsbank AG • Cariplo
Chase Manhattan Bank, N.A. • Continental Bank N.A. • Credito Italiano
The Daiwa Bank, Limited • Deutsche Bank AG
The Hong Kong and Shanghai Banking Corporation Limited
The Industrial Bank of Japan, Ltd
Istituto Bancario San Paolo di Torino • Lloyds Bank PLC
The Mitsubishi Bank, Limited • National Westminster Bank PLC
NCNB Texas National Bank • Northern Trust Co.
The Sanwa Bank Limited • The Sumitomo Trust and Banking Company Ltd.
Wachovia Bank of Georgia, N.A. • Westdeutsche Landesbank Girozentrale

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This transaction was arranged and syndicated by Citicorp Securities Markets, Inc.

JULY 1991

CITICORP

Citicorp Securities Markets, Inc. is a wholly owned subsidiary of Citicorp

prominence of the lead manager and the balance of the management group at the top, the agent bank (usually the lead manager that put the deal together) at the bottom, and the several *brackets* of participants between the upper-bracket banks that have committed more funds and hence play a more important role in the deal, and the lower-bracket ones.

There are a number of variants of this general *full syndication* pattern. If market conditions are not receptive to a full syndication, or if a borrower is regularly in the market for funds, a *club loan* may be arranged, wherein a separate information memorandum is not necessary and the lead bank together with the rest of the management group provide the entire amount of the loan themselves. In a *semisyndication,* an unusually large share of the funds is provided by the managers themselves and the balance by a relatively small number of participants who generally know the borrower or its industry well and hence get involved on a more exclusive basis. Figures 2-2 and 2-3 give examples of club loans and semisyndications, respectively.

In *participation loans,* one or more banks will underwrite the entire financing and execute the loan agreement, later individually selling down participations to a small number of other banks without the formal structure of a full syndication. Also called a *pre-advanced syndicate,* the borrower actually gets its money from the lead bank(s) before part of the loan is sold down on the basis of a participation certificate only and no borrower contact whatsoever. The same is true of *loan notes,* which are sold freely among any banks interested in booking participations in a particular transaction employing a loan note structure.

The entire syndication process normally takes anywhere from two weeks to three months, depending on the borrower, the complexity of the deal, market conditions, competence of the managers, size of the loan, and similar factors. All out-of-pocket costs involved in the syndication, including legal fees, advertising, travel, and communications charges, are for the account of the borrower.

Maturities and Structure

Syndicated lending is often medium term in nature, and the banks involved may have to take a relatively long view of the borrower's ability and willingness to service the loan. This has been one reason for the importance of government and government-guaranteed borrowing in this market. Many private-sector syndications (such as acquisitions financings) are much shorter in maturity and are designed to be eliminated by lower-cost bond or stock issues later.

Given borrower needs, maturities tend to follow market conditions and borrower creditworthiness. Syndicated loans usually involve a *drawdown schedule,* according to which the borrower will acquire the principal of the loan, generally related to the date on which the loan is signed. Repayment of principal may be over a 5- to 10-year period, and there may

This announcement appears as a matter of record only



LAURA ASHLEY GROUP

£50,000,000

5 Year Revolving Credit Facility

Arranged by

Citicorp Investment Bank Limited

Participants

The Bank of Tokyo, Ltd.	**Citibank, N.A.**
Den Danske Bank	**Midland Bank plc**
The Dai-Ichi Kangyo Bank, Limited	**Banca Popolare di Novara** London Branch

Bank Mees & Hope NV

Facility Agent:

Citicorp Investment Bank Limited

Financial Advisors to Laura Ashley Group

Lazard Brothers & Co., Limited

CITIBANK

24 January 1992

Figure 7.2. Example of a club loan

Mobil Exploration Norway Inc.,

Norwegian Branch

U.S.$ 300,000,000

Revolving Credit Facility

Underwriters and Senior Lead Managers:

Citibank, N.A.

National Westminster Bank Plc

Lead Managers

ABN AMRO Bank N.V.
Belgian Branch

Banque Nationale de Paris

Banque Paribas

Bayerische Landesbank Girozentrale
London Branch

Canadian Imperial Bank of Commerce

Crédit Lyonnais
London Branch

The Dai-Ichi Kangyo Bank, Limited

Den Danske Bank

The Hongkong and Shanghai Banking Corporation Limited

NMB Bank

Rabobank Nederland
London Branch

Scotiabank (Ireland) Limited

Svenska Handelsbanken

WestLB Group

Managers:

Bank of America NT&SA

Banque Indosuez Norge A/S

Société Générale
London Branch

The Sumitomo Bank, Limited

Co-Arranger and Facility Agent

Citicorp Investment Bank Limited

Co-Arranger

NatWest Capital Markets Limited

CITIBANK



February 3, 1992

Figure 2-3. Example of a semisyndication.

be a grace period of as much as 4 or 5 years during which no repayment of principal is due. Principal repayment may then be made on an amortization basis over the rest of the life of the loan, all at once at the end (a *bullet loan*), or on some other mutually agreed schedule.

Clearly, maturity and loan structure considerations must meet both borrower and market requirements. In devising an appropriate structure the lead bank must use its expertise, market positioning, influence with the borrower, and creativity in bringing the two sides together. And, unlike ordinary loans between a borrower and a lender, the terms of syndicated loans generally become publicly known. It is difficult to keep pricing, fees, maturity information, legal covenants, and borrower information confidential if it has to be fully disseminated among 20, 50, or more banks in a major syndicated loan.

Borrowers and lenders constantly compare terms of syndications, both over time for individual borrowers and among borrowers, so that precedent plays an important role in the market. A borrower will compare the terms offered with those it faced the last time it entered the market and those apparently being offered to others. If the borrower shows up too frequently, if its credit-worthiness is perceived to have deteriorated, if the purpose of the loan is questioned either in its own right or as an indication of its overall competence, or if others enter the market who are deemed to have better standing, it may have to live with higher costs or shorter maturities, or both. And what happens today will help set the stage for the borrower's next foray into the market.

Pricing

Syndicated loans in international banking are generally priced on an agreed upon *floating base* rate of interest, in most cases the London Interbank Offered Rate (LIBOR), as a proxy for the banks' own cost of funds. To this floating base is added a *contractual spread*, which may be fixed for the entire life of the loan or may be *split*, that is, fixed at one spread for the first several years and another spread for part or all of the remainder. For example, the rate on a typical eight-year syndicated credit to a major borrower may be set at LIBOR + ¾ percent for the first five years and LIBOR + ⅞ percent for the rest of the period.

Interest payable by the borrower is adjusted on a *rollover date* usually every three or six months, at the borrower's option, with the new period's base rate being specified in the typical loan agreement as the average LIBOR quoted two days earlier by selected *reference banks* that are members of the syndicate. The strongest of these banks can often attract three- or six-month deposits at a cost below LIBOR or may fund the loan in other maturities, depending on relative interest rates, to secure funding profits in addition to the contractual spread.

This may be combined with a cap, floor, or collar option defining maximum allowable deviations from the interest-rate benchmark to pro-

tect borrowers and lenders from interest rate risk. Note that floating-rate pricing in syndications places the basic interest-rate risk, except that between rollover dates, on the borrower. Banks nevertheless retain credit risk and country risk as well as funding risk, that is, the risk that funds in the needed currency may not be available when present funding has to be rolled over. The possibility of widening or narrowing future spreads does leave banks with some residual interest-rate risk even on floating-rate loans. For example, a bank may participate in a very finely priced syndication today, and market conditions dictate substantially wider spreads for the same borrower a year or two later.

All payments of principal and interest in syndicated loans are specified *net to the lender,* that is, free and clear of all taxes levied by the borrower's taxes or fully creditable against the taxes levied in the bank's home country. Liability for taxes levied where the loan is booked is often a point to be negotiated. Participants in syndicated loans tend to be comparatively detached in evaluating loan pricing, since they, unlike the banks in the management group, have little or nothing to gain in terms of a relationship with the borrower. What's good for the lead managers is not necessarily good for the participants.

In the past, however, banks have participated in syndications on the thinnest of spreads in order to compensate for slack loan demand elsewhere, to secure access to the market or client, or to generate opportunities for funding profit, or due to sloppy risk assessment and loan portfolio management. Such banks became known in the trade as "stuffees."

Fees

Of particular interest in evaluating the returns to banks from loan syndication are the fees paid by the borrower to the participants. These take several forms.

First, managers will have to be compensated for arranging and underwriting the loan, including assumption of the risks involved. This usually takes the form of a front-end *management fee* as a flat percentage of the total loan (e.g., 1 percent) payable at or shortly after the signing. The size and complexity of the loan, the nature of the borrower, competition among banks for the borrower's business, and similar factors figure into the negotiated size of the front-end fee.

A part of the management fee will usually have to be shared by the syndicate manager(s) with other participants to successfully sell down a loan, especially a very large one. This *participation fee* takes the form of a flat percentage of each bank's final amount lent. It is often divided into size categories based on the level of participation by groups of banks.

Second, since a particular loan may not be drawn down immediately but has to be made available to the borrower over time as specified in the loan agreement, a separate *commitment fee* is often provided, generally a

flat percentage (e.g., ½ percent) on the undrawn portion of the loan, starting on the day of the signing and prorated among the participating banks.

Finally, the bank acting as agent in a syndication will normally negotiate an *agent's fee*, usually a fixed sum (e.g., $50,000 per year for the life of the loan) payable by the borrower up front or annually in recognition of that bank's responsibilities in running the books on the loan.

While the agent's fee and the commitment fee are clearly set in the deal terms, the division of the management fee among syndicate participants is a matter for negotiation and may in the end be quite complex. On a $100 million fully committed loan lead-managed by a single bank that has negotiated a 1-percent management fee, or $1 million, the bank may decide that it has to distribute $750,000 to all banks in the "co-lead" category to ensure a successful syndication, but it can withhold ¼ percent ($250,000) for itself as compensation for serving as "manager of the managers." This ¼ percent portion is called a *praecipium* and represents the unique return to lead manager(s) for arranging the deal.

It may now decide to offer a participation fee of ¾ percent of final participation to banks (including itself) that lend at least $10 million each (co-lead managers), ½ percent to banks participating at a level of $5 million or more, and ¼ percent to banks that take under $5 million. Suppose, of the $100 million total loan, the lead manager takes $15 million into its own portfolio, four co-managers are in at $10 million, plus 6 banks are in at $5 million and 15 banks at $1 million. Of the available $750,000 in participation fees, the lead manager thus gets $112,500 (¾ percent on its $15 million participation, or *final take*), co-managers get $300,000 (¾ percent on $10 million × 4 banks), first-level participants get $150,000 (½ percent on $5 million × 6 banks), and second-level participants get $37,500 (¼ percent on $1 million × 15 banks). Under these conditions, a total of $600,000 in participation fees have been allocated, leaving $150,000 unallocated, called the *pool*. This pool is normally distributed to the management group in proportion to their individual underwriting commitments.

In this example, the fee earnings by the lead manager out of the $1 million management fee are:

Praecipium	$250,000	
Participation	112,500	
Pool share	40,909	
	$403,409	(1 bank)

Each of the co-managers gets:

Participation	$ 75,000	
Pool share	27,273	
Total	$102,273	(4 banks)

Each of the first level participants gets

Participation	$ 25,000	(6 banks)

Each of the second level participants gets:

Participation	$ 1,500	(15 banks)

All of this adds to $1 million: $403,409 + $102,373 (4) + $25,000 (6) + $2,500 (15) = $1 million (rounded-off).

For the lead manager this means an immediate return of 2.69 percent of its final take ($1.5 million), for co-managers 1.02 percent, for first-level participants 0.5 percent, and for second-level participants 0.25 percent. But because these fees are immediate, the interest equivalents based on the average life of the loan are proportionately higher in comparison to the contractual spread. This illustrates the importance that credit-related fees tend to assume in evaluating a bank's overall return on syndication activity. The objective for lead banks is to maximize fee income per dollar actually lent, and this obviously means commanding a position in the upper tiers of syndications where the bulk of the fee income (as well as the risks and the required skills) are lodged. It also means, for the lead managers, trying to maintain confidentiality about the overall size of the fee—and sharing that fee only to the extent necessary to ensure a successful syndication.

As components of returns to the participating banks (and costs to the borrower), spreads and fees are obviously related. Because higher contractual spreads may carry negative connotations about the borrower's creditworthiness, it may agree to fatter fees to compensate the lenders for finer spreads in order to improve its market positioning in future borrowings. Similarly, borrowers will sometimes undertake *benchmark financings*—syndicated loans with extremely fine pricing even if there is no real need for funds (with the borrower viewed by the market as particularly creditworthy) just to "show the flag" and try to improve future borrowing conditions. A borrower's "name" in the market evolves over a period of time, as does a bank's competitive performance, and both have a great deal to do with the structure of pricing and fees.

The Agency Function

The task of servicing a syndicated loan falls on the agent bank, usually the lead bank or one of the lead managers assigned the job. In one respect, the agency function is purely a mechanical one, involving running the books on the loan. There are at least seven functions:

- Seeing that the terms of the loan agreement are complied with regarding drawdown, rollover, interest payments, grace period, and repayment of principal

- Collecting funds from participants as per the drawdown provisions and disbursement to the borrower
- Fixing the interest rate periodically against the floating rate base (such as LIBOR) as per the contractual spread
- Computing interest and principal due, collecting from the borrower, and distributing to the lenders (not such a simple task when funds are due in one place and time and payable in another)
- Monitoring loan supports, such as collateral valuation, guarantees, and insurance
- Evaluating and ensuring compliance with covenants in the loan agreement and informing participants, as necessary
- Collecting periodic reports from the borrower, independent auditors, or other information and distributing them to participants

Such tasks have to be done reliably, efficiently, and promptly, yet they are little more than clerical in nature.

It is when trouble brews that the agency function takes on a far more complex and different character. The loan documentation will obviously specify under what conditions default occurs, but this may involve zero, partial, or full agent discretion. A capable agent bank that has attained this role by virtue of a superior track record in this function, participation in syndicate leadership, and a sizable loan commitment for its own book is likely to have sufficient familiarity with the borrower and large enough stakes in the outcome to be trusted with some measure of discretion and forbearance in problem situations, unless such decisions can only be made by a stipulated voting procedure among syndicate participants.

If a borrower does encounter difficulties, the syndicate leadership and/or the agent bank performs a critical role in explaining the problem to loan participants and creating a climate within which a workout can be accomplished—one that is obviously in the fundamental interest of both sides. The role agent took on enormous importance during the sovereign debt renegotiations throughout the 1980s.

Defining the agent's proper role is not easy. What is the agent's legal responsibility to the borrower and to lenders? If the agent bank is also lead manager, it may well have long-standing ties to the borrower, and potentially divided loyalties. What information obtained by the agent about the borrower's financial condition should be kept in confidence, and what should be passed on to participants? Discretion also carries with it potential liability, which an agent bank may wish to avoid. Yet a continuing and digestible flow of information to syndicate participants may form the basis for smoothing adjustments to problem situations, sound advice to the borrower, avoidance of crises where everyone loses, and preparing the way for possible infusions of additional funds by syndicate members where workout situations are encountered. Day-to-day borrower contact is critical, and this cannot possibly be provided by the whole syndicate. A certain degree of agent discretion—perhaps backed up by a small commit

tee of syndicate members—and flexible interpretation of the terms of the legal documentation may lead to a far better outcome than applying no flexibility at all. There must be mutual trust and commonality of interest, coupled with adequate flow of information, for which no amount of legal language can effectively substitute.

The agency function is enhanced by the fact that full borrower due diligence can be inadequate in the case of some syndicate participants. They may be too small and have inadequate staff capabilities or the cost may be excessive. Or the time available before a decision has to be made may be too short. Yet the lead banks' own assessments cannot be made available because of the implied liability involved. Apart from the lead banks' efforts to ensure an accurate and complete information memorandum, there is no good solution to this problem.

Competitive Performance

Relatively few banks dominate international loan syndication activities. Table 2-1 gives the 1994 rankings for lead banks on publicized Eurosyndications, while Figure 2-4 provides market-share information by home country of lending banks. The name of the game is obviously syndicate leadership, and in a market where news travels fast and is rife with scuttlebutt, a strong position may be difficult to attain and to hold.

Table 2-1 Top 50 Arrangers of Syndicated Loans and Note Issuance Facilities, 1994 (proportionate credit)

Rank	Bank	Dollar Volume	Rank	Bank	Number of Deals
1	Chemical Bank	211,576.90	1	Chemical Bank	385
2	J.P. Morgan	85,297.22	2	Citicorp	70
3	Citicorp	47,373.68	3	J.P. Morgan	152
4	Bank of America	42,372.22	4	Chase Manhattan	143
5	First Chicago	41,022.70	5	Bank of America	138
6	Chase Manhattan	39,553.85	6	ABN AMRO	135
7	NationsBank	24,211.76	7	First Chicago	129
8	Crédit Suisse	22,783.74	8	NatWest	121
9	Bankers Trust	20,432.98	9	Barclays	115
10	UBS	19,528.24	10	UBS	108
11	Barclays	17,914,48	11	Crédit Suisse	99
12	NatWest	17,168.18	12	DKB	79
13	SBC	16,725.55	13	Fuji	78
14	ABN AMRO	13,517.55	14	Bankers Trust	76
15	Toronto Dominion	12,958.15	15	Sumitomo	72
16	BNS	12,865.43	16	BNS	68
17	RBC	9,559.88	17	Société Generale	66
18	Societe Generale	7,370.75		Toronto Dominion	66
19	Bank of New York	7,216.57	19	Nations Bank	64
20	HSBC	6,922.73	20	Deutsche Bank	62
21	Deutsche Bank	6,846.73	21	HSBC	60

continued

Table 2 1 (continued)

Rank	Bank	Dollar Volume	Rank	Bank	Number of Deals
22	Lloyds	6,647.05		Sanwa	60
23	Bank of Boston	6,273.20	23	WestLB	59
24	DKB	5,638.83	24	Bank of Tokyo	52
25	CIBC	5,584.86	25	Bank of Boston	49
26	Banque Indosuez	5,274.98	26	Standard Chartered	46
27	Chiao Tung	5,000.00	27	LICB	45
28	Continental	4,858.92	28	CIBC	38
29	Fuji	4,373.19		RBC	38
30	Sumitomo	4,143.17		SBC	38
31	Crédit Lyonnais	3,819.28	31	Sakura	36
32	WestLB	3,779.65	32	Bank of New York	35
33	Bank of Montreal	3,738.63	33	Banque Indosuez	34
34	Bank of Tokyo	3,722.72		Crédit Lyonnais	34
35	Ensklida	3,057.09		Mitsubishi	34
36	Banque Paribas	2,625.61	36	IBJ	33
37	IBJ	2,523.89	37	Continental	32
38	EXIM Japan	2,493.57	38	Banque Paribas	31
39	Sanwa	2,219.16	39	KDB	29
40	LTCB	2,166.14		Lloyds	29
41	Dresdner Bank	2,156.04	41	KEB	28
42	Standard Chartered	2,067.37	42	Dresdner Bank	26
43	Mellon	1,988.10	43	Bank of Montreal	24
44	Kleinwort Benson	1,840.38		Commerzbank	24
45	Commerzbank	1,792.05	45	CBK	23
46	CBA	1,688.25	46	ANZ	19
47	Svenska	1,672.63		Bayerische Landesbank	19
48	Pittsburgh National	1,595.15		Enskilda	19
49	ANZ	1,495.89		Schroders	19
50	Westpac	1,482.94	50	AFC	18
				BNP	18

Data: International Financing review, Securities Data Corporation, OmniBase.

Lead managers in syndications carry heavy responsibilities to both borrowers and lenders. They must be absolutely forthright and reliable in their dealings with participants. They must stay away from substandard deals and develop a pattern of offering participations that have attractive risk/return profiles. They must avoid the "hard sell," a difficult thing to do when things are not going well, and retain participant respect even in the heat of the syndication process. They must be thoroughly familiar with market conditions and individual banks' attitudes toward particular borrowers, and develop a good overall working relationship with a broad array of banks—including participations and possible management roles in syndications led by others. And they must have a major presence in syndication centers staffed by specialized groups that can effectively back up the lending officers at the customer end to win mandates and at the same time be capable of structuring a syndicate and successfully getting the deal. Such individuals are generally bright, tactful, resourceful, and tough bargainers.

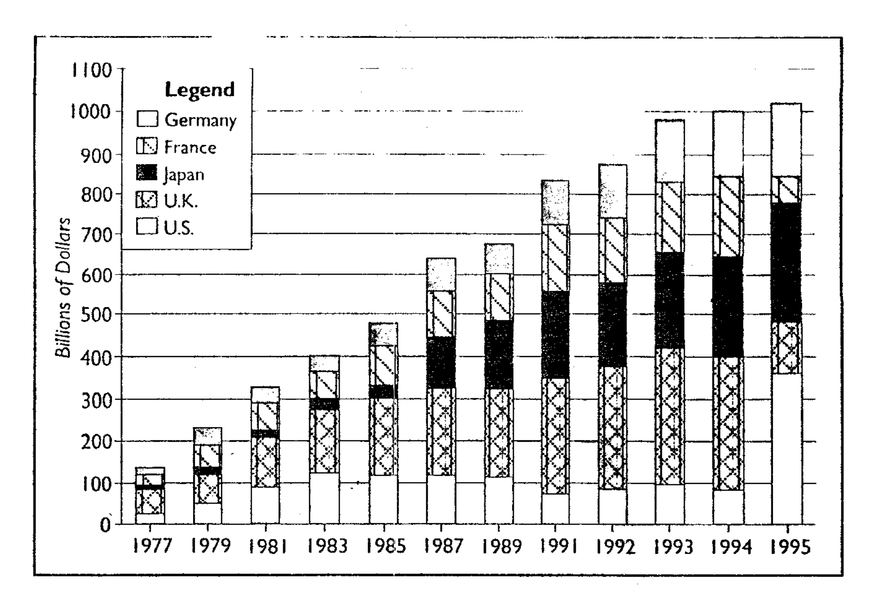


Figure 2-4. Cross-border bank credit to nonbanks by residence of lending bank, 1977–95. Source: IMF, International Financial Statistics Yearbook, 1995, p. 67.

At the other end of the deal, successful lead banks must have established sound working relationships with (and reputation among) potential borrowers, often covering the gamut of banking services (possibly a local presence), and a track record of commitment in good times and bad. They must be a steady source of sound advice, even if this runs counter to the current desires of the borrower. They must be able to convince the borrower of their strong position in the syndications market, and the ability to bring off a syndication on the most competitive terms possible. Their image of competence must be unquestioned, and they must be seen as an important player in the market. Above all, lead managers must avoid errors. Misestimating market conditions or borrower acceptability may produce a "failed" syndication or an embarrassing return to the borrower for sweeter terms. Best-efforts syndications can obviously fail outright, leading to red faces all around, a loss of fees, or a humiliating return to the market with sweetened terms. Renegotiated fully committed syndications have similar consequences. Both can strain relationships between the syndicate leadership, the borrower, and participating banks. If repeated too often, they can severely erode the ability of those responsible to compete for syndications in the future. Likewise, mishandling the job of agent, which is always possible in problem situations, can cause serious difficulties to borrower and syndicate participants alike. They can produce "black marks" which, when cumulated and amplified by market gossip, can seriously erode a bank's competitive position for the most lucrative aspects of the business.

Since loan syndication is rather similar to the underwriting function for debt securities (discussed in chapter 9), one might expect investment banks to play a much stronger competitive role in loan syndication than appears in Table 2-1. However, borrowers like banks awarded syndication mandates to take a substantial share of the loan themselves, and in a fully committed deal they *must* be in a position to do so if necessary. This investment banks are generally unable or unwilling to do. Similarly, syndicate participants like to see lead managers and agents with sizable stakes in the game, whereas investment banks may be viewed as working primarily for the borrower's interests. To fully serve their clients, some investment banking firms, notably Merrill Lynch and CS First Boston, have created a syndicated lending capability.

In the early days of international loan syndication the status of the lead bank played a dominant role in determining the success of the deal. But the LDC debt crisis and highly leveraged M&A and real estate loans of the 1980s, together with pressure by bank regulators, have tilted the balance toward a much more careful and detailed examination of borrowers by participating banks.

Commercial Paper and Note Issuance Facilities

Commercial paper has existed for more than 100 years in the United States (USCP)—short-term promissory notes sold without documentation by high-grade issuers to sophisticated investors (such as mutual funds, corporations, banks, and pension funds) who use the market to invest at short-term interest rates that exceed those available from the treasury bill market. Most paper is issued in very short maturities, sold at a discount, and rolled over at maturity. Commercial paper is usually rated, and many CP investors are restricted from purchasing unrated paper. Issuers of commercial paper normally must also provide committed bank loan "back-up" facilities to ensure the availability of cash to redeem maturing paper in the event of a market disturbance that might restrict rollovers. Figure 2-5 illustrates the dramatic rise in USCP's market share against bank lending.

To meet the quality standards of the market, many issuers sell paper accompanied by a letter of credit (see chapter 3) of a major bank. International corporations as well as governments and agencies issue commercial paper in the U.S. market—virtually all of it is placed with U.S. institutional investors. A Eurocommercial paper (ECP) market exists in London and operates very much like the USCP market, except that it is much smaller and the maturities are longer, thus allowing secondary-market trading. As indicated in Figures 2-5 and 2-6, CP markets have developed in other countries as well. Over the years, the commercial paper markets have attracted most U.S. and many large foreign corporate borrowers to issue paper at rates substantially below bank lending rates.

Some ECP programs are created as part of a Euro *note issuance facil*

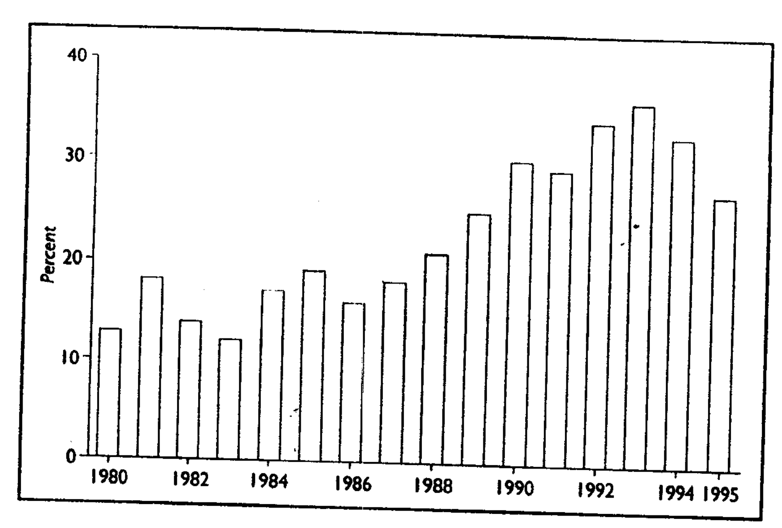


Figure 2-5. Nonfinancial commercial paper to C & I loans. Source: Federal Reserve Bulletin, February 1994.

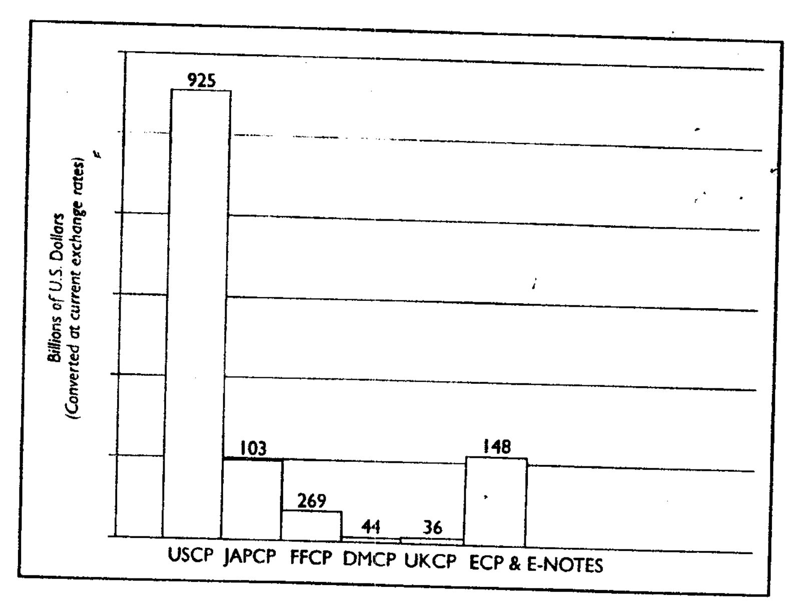


Figure 2-6. Domestic and international markets for commercial paper (CP) and medium-term notes (amounts outstanding at year-end 1993). Source: BIS 64th Annual Report June 1995

ity (NIF), which provides a borrower with an assurance of a medium-term financing facility (provided by a syndicate of banks) under which the borrower may either sell notes (i.e., ECP) to the market at a money-market rate set by auction at the time of sale, or sell the notes at a rate reflecting an agreed maximum spread over a base rate, either LIBOR or the "bid" side of the London Interbank market rate for deposits (LIBID).

NIFs can provide a structure that permits auctioning off the Euronotes at the time of their sale through a *tender panel*—a designated group of banks (possibly including some other than the NIF providing banks) and dealers who agree to tender, or bid, for notes when they are offered. The tender panel members may bid any rate they choose, so that their participation is in effect on a best-efforts basis. If the bids are not competitive with the maximum agreed spread over the base rate, none is accepted and the notes are instead purchased by the NIF-providing banks. Another version of this structure is *revolving underwriting facility* (RUF), under which a designated sole placing agent—not necessarily a backstop-providing bank—uses its best efforts to place the notes at rates below the agreed maximum rate. If it is not successful, the RUF-providing banks either purchase the notes or offer a loan at the agreed maximum spread instead.

The issuer pays arrangement and underwriting fees for a NIF or RUF. The tender panel banks are not paid fees—their compensation comes from the spread earned by reselling notes to the market at a slightly higher price than they paid for them. The NIF or RUF structure is designed to give the borrower guaranteed rollover at an agreed spread for several years, and the opportunity to sell paper at rates lower than the agreed rates when the conditions permit. Figure 2-7 maps out the structure of underwritten Euronote facilities.

Figures 2-8 and 2-9 present tombstones on typical ECP and RUF structures, respectively, in which the roles of arranger, underwriters, tender panel, and sole placing agent are clearly identifiable.

The borrower may also add a provision to the NIF or RUF agreement to permit the use of the facility for backstopping the issuance of U.S. commercial paper. In such cases an undrawn portion of the facility is set aside for this purpose. The commercial paper will be sold and rolled over by a dealer in the United States, but only a portion of the facility will actually have to be made available in New York (in overnight funds)—an amount adequate to cover single-day rollovers. This portion of the facility is called a *swingline.*

A variation is a NIF or RUF with a built-in provision for a letter of credit from a bank (usually with the lead bank in the facility) under which the notes (or U.S. commercial paper) are issued. This arrangement enables issuers of lesser credit standing to use the ECP or the U.S. commercial paper market, or to borrow directly from the banks, whichever is cheaper. A ***prime issuance facility*** is similar to the NIF except that the maximum interest spread is expressed in terms of the U.S. prime interest rate instead of LIBOR or LIBID. In the *transferable revolving underwriting facility*

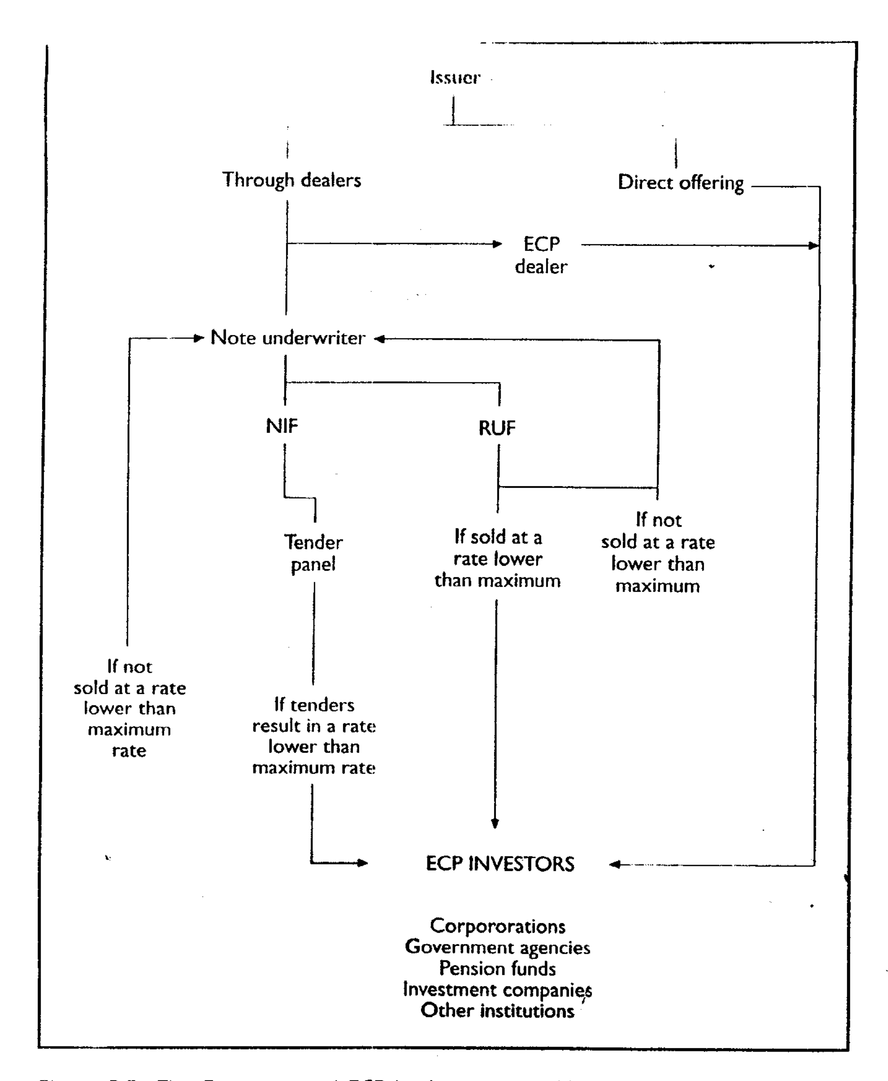
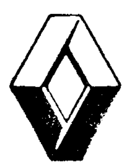


Figure 2-7 The Euronote and ECP issuing process. NIF = Note issuance facility, RUF = revolving underwriting facility.

(TRUF), the underwriting bank's contingent liability to purchase notes in the event of nonplacement is totally transferable (i.e., sellable) to other banks. Finally, there is the *multioption financing facility* (MOFF), whereby the banks' medium-term underwriting commitment consists not only of Euronotes, but extends to a wider range of instruments such as bankers' acceptances and short-term advances, possibly in a number of different currencies. Figure 2-10 presents a typical MOFF tombstone with the respective roles of the various participants clearly identified.

This announcement appears as a matter of record only

10th March 1992



Renault Crédit International S.A.
Banque

Renault Acceptance B.V.
with the guarantee of

Renault Crédit International S.A.
Banque

U.S. $500,000,000

Euro-Commercial Paper Programme

Rated: A1-P1

Arranger

UBS Phillips & Drew Securities Limited

Dealers

Crédit Lyonnais

NatWest Capital Markets Limited

UBS Phillips & Drew Securities Limited

Issuing and Paying Agent

Citibank, N.A.



Figure 2.8 Sample tombstone for a typical Eurocommercial paper structure

This announcement appears as a matter of record only



Victorian Public Authorities Finance Agency
U.S. $100,000,000
Revolving Underwriting Facility

Guaranteed by

The Government of Victoria

Arranged by

Citicorp Investment Bank Limited

Underwriters

Algemene Bank Nederland N.V. • BankAmerica Capital Markets
Bank of Montreal Asia Limited • The Bank of Tokyo (Holland) N.V. • Banque Nationale de Paris
Barclays Bank PLC • CIBC Capital Markets • Citibank (Channel Islands) Limited
Commonwealth Bank of Australia • Crédit Lyonnais, Singapore Branch • Crédit Suisse
Duetsche Bank Luxembourg S.A. • DKB International Limited
Fuji International Finance Limited • The Industrial Bank of Japan (Luxembourg) S.A.
International Westminster Bank PLC • Mitsui Finance Asia Limited
Nomura Europe N.V. • Sanwa International Finance Limited
Security Pacific Hoare Govett Asia Limited • Société Générale • State Bank Victoria
Sumitomo Finance (Asia) Limited • Swiss Bank Corporation • Westpac Banking Corporation

Facility Agent

Citicorp Investment Bank Limited

Issuing and Paying Agent

Westpac Banking Corporation

December 21, 1987

CITICORP INVESTMENT BANK

Figure 2-9. Sample tombstone for a typical revolving underwriting facility.

This announcement appears as a matter of record only

BRITISH AEROSPACE 

British Aerospace Public Limited Company

U.S. $825,000,000

Multiple Option Facility

Arranger

Citicorp Investment Bank Limited

Lead Managers

The First National Bank of Chicago • Banca Nazionale del Lavoro, London Branch

Bank of America NT&SA • The Bank of New York • Bankers Trust Company

Bayerische Landesbank Girozentrale, London Branch • The Chase Manhattan Bank, N.A.

Citibank, N.A. • Credit Suisse • Daiwa Europe Bank plc

Gulf International Bank B.S.C. • The Long-Term Credit Bank of Japan, Ltd.

The Mitsubishi Bank, Limited • The Mitsui Bank, Limited

The National Bank of Kuwait SAK, London Branch • Rabobank Nederland, London Branch

Riyad Bank, London Branch • Security Pacific National Bank

Société Générale, London Branch

Managers

Credito Italiano, London Branch • The Royal Bank of Canada

Co-Managers

Amsterdam-Rotterdam Bank N.V. • Arab Bank Limited • The Bank of Nova Scotia

The Bank of Tokyo, Ltd • Chemical Bank • Clydesdale Bank PLC

The Dai-Ichi Kangyo Bank, Limited • The Fuji Bank, Limited • Grindlays Bank p.l.c.

The Hongkong and Shanghai Banking Corporation • The Industrial Bank of Japan, Limited

Manufacturers Hanover Trust Company • The Mitsubishi Trust and Banking Corporation

The Sanwa Bank, Limited • Saudi American Bank, London Branch

Seattle-First National Bank • The Sumitomo Bank, Limited (London Branch)

Westdeutsche Landesbank Girozentrale, London Branch • Westpac Banking Corporation

Agent and Tender Panel Agent

Citicorp Investment Bank Limited

June 28, 1989

CITICORP

Figure 2-10. Typical multi-option financing facility tombstone

The Principal Players

Investors in the Euronote/ECP market include: (1) banks and other financial institutions looking for spreads over LIBOR or their own cost of funds, and (2) nonbank investors whose short-term assets include bank deposits, CDs, short-term government securities, and commercial paper.

Borrowers in the market include sovereign and corporate issuers. The latter can be subdivided between companies viewed as high-quality credits, which tend to use uncommitted CP programs, and those of lesser credit standing, which require committed, underwritten facilities.

Commercial paper and Euronote facilities are extremely flexible. Borrowers are not locked into any one interest-fixing date as they are, for example, in syndicated Euroloans or floating-rate notes in the Eurobond market (see chapter 9). So they have more opportunities to take advantage of interest-rate windows as they occur—clearly of great interest in volatile market conditions. This speed of response may be especially valuable in multioption facilities, which allow the borrower access to a range of currencies and credit forms. They can play the yield curve and respond to particular openings of investor interest. One large program can serve both to retire outstanding, more expensive debt and to rationalize debt management requirements. For a competitive commitment fee, the borrower using Euronotes can access cheap funds as and when needed, expanding or contracting the level of debt at will, safe in the knowledge that if market conditions are not receptive to the notes, funds are nevertheless assured. The broken or odd-dated maturities, which are a common feature of many CP programs, also provide a great deal of flexibility, allowing issuers to tailor the period of their financings precisely to their specific funding requirements.

Although the ECP market still has nowhere near the depth of its U.S. counterpart, it nevertheless has certain distinct advantages that have contributed to its growth. It offers longer maturities at competitive rates and caters to a global investor base, whereas demand in the U.S. market is almost wholly domestic. Investors from Australia, continental Europe, the Far East, and the Middle East (corporate treasurers as well as central and commercial banks and other institutions) constitute an investor base that allows a broad range of maturities, while the speed with which the leading ECP houses are able to arrange and distribute deals is greatly helped by limited regulation.

Summary

Figure 2.11 summarizes how capital is raised on the international debt market. Note the dominance of capital market instruments, notably the international bond market, in terms of new issues. Nevertheless, international syndicated lending and related activities such as underwritten Euro-

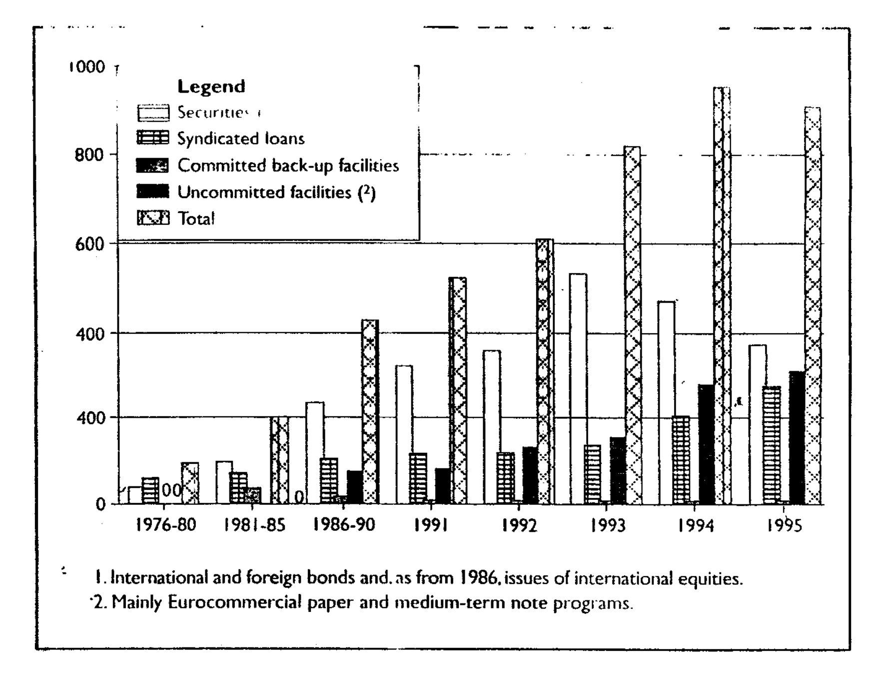


Figure 2.11 Borrowing on the international capital markets ($ billion, annual averages). Source: Organization for Economic Cooperation and Development, *Financial Market Trends*, February 1995

note facilities continue to have a place. Each has its specific uses, and particularly in the case of syndicated lending there are no good substitutes for purposes such as short-term M&A financing or project finance (see chapter 3).

Few banks that purport to provide a full range of services to their global client base are not actively involved in syndicated lending. We have seen that it has advantages for borrowers and lenders alike. We have spelled out the characteristics of success in syndicate leadership, which is where the real competitive game is played and where the real profits are lodged.

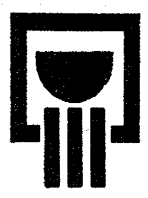
The story of Euronote programs and Eurocommercial paper is one of rapid change at all levels. The competitive structure of the market has undergone substantial modification with bargaining power tending to shift away from borrowers to investors. In the early days top and lesser-quality names alike benefited from the intense competition among banks resulting from deregulation and disintermediation. They profited as well from a lack of investor sophistication. Today most corporate and institutional investors have a full understanding of the workings of the market and what is available to them. And distributive power has been concentrated in the hands of a few houses, which are more interested in volume and profit

ability than the number of dealerships they hold. Gone are the days of loss-leading for a place in the market. Attention is on courting the investor base in search of greater diversification of funding.

Other changes have occurred as well. Distribution methods have been modified to suit new conditions and demands. The use of ratings has increased in the ECP market, with the need for investors to react quickly in fast-moving markets. The very nature of the instrument has evolved, with the nonunderwritten ECP now predominating over Euronote programs. These changes will continue as new economic conditions give rise to new requirements and new responses. The Euronote grew as a substitute for syndicated loans, floating rate notes in the Eurobond market, and Eurocertificates of deposit issues by banks. Its success came in part from the events shaping the financial world at the time. As increasing globalization brought increasing competition, so the pace of product innovation has quickened.

As the Euronote market deepened, it became obvious that prime borrowers could dispense with underwritten facilities altogether, thus reducing costs. ECP provided greater flexibility for borrowers and investors alike. It offered a faster and more efficient method of placement. These advantages led to a widening of the investor base and consequently further reduced costs and increased flexibility. Euronote programs and subsequently ECP have had substantial success. They are perhaps best viewed as a complement to rather than a replacement for more traditional forms of bank finance, an additional financial string to the borrower's bow, offered as part of an increasingly efficient international money market.

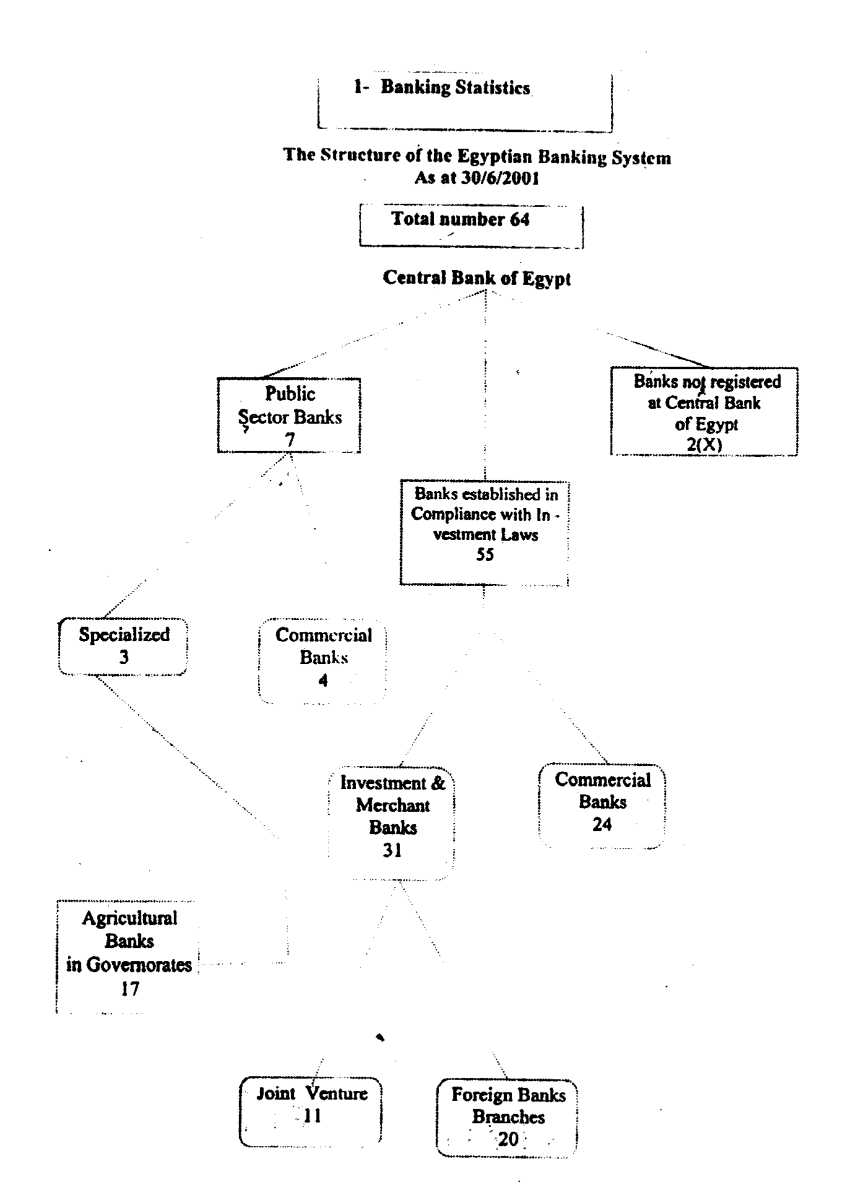
NATIONAL BANK OF EGYPT



ECONOMIC BULLETIN

Vol. 55 No. 1
2002

Cairo



(X) Not included two banks established under private laws and are not registered with CBE :The A
International Bank and Nasser Social Bank.

Les grandes firmes mondiales

Les premiers groupes par secteur en 2000

(en milliards de dollars)

AÉRONAUTIQUE

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. BOEING	Etats-Unis	51,3	2,10	198 000
2. UNITED TECHNOLOGIES	Etats-Unis	26,6	1,80	153 800
3. LOCKHEED MARTIN	Etats-Unis	25,3	−0,50	130 000
4. HONEYWELL	Etats-Unis	25,0	1,60	125 200
5. EADS	Fr./Alle./Esp.	17,9	−0,80	88 900
6. RAYTHEON	Etats-Unis	16,9	0,10	93 700
7. BAE SYSTEMS	Grande-Bretagne	14,2	−0,02	85 000
8. TEXTRON	Etats-Unis	13,1	0,20	71 000
9. GENERAL DYNAMICS	Etats-Unis	10,4	0,90	43 300
10. THALES	France	8,0	0,50	65 000

AGROALIMENTAIRE

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. NESTLÉ	Suisse	49,9	3,5	224 550
2. UNILEVER	G.-B./Pays-Bas	43,9	1,0	261000
3. CONAGRA[1]	Etats-Unis	27,2	0,6	85 000
4. COCA-COLA	Etats-Unis	20,4	2,1	36 900
5. PEPSICO	Etats-Unis	20,4	2,2	124 000
6. ARCHER DANIELS MIDLAND[2]	Etats-Unis	20,0	0,4	22 750
7. DIAGEO	Grande-Bretagne	19,1	2,4	66 700
8. SARA LEE[2]	Etats-Unis	17,7	1,2	154 000
9. IBP	Etats-Unis	16,9	0,1	50 000
10. GROUPE DANONE	France	13,3	0,6	86 700

ASSURANCES

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. AXA	France	92,7	3,6	95 400
2. ING GROUP	Pays-Bas	71,2	11,0	92 650
3. ALLIANZ	Allemagne	71,0	3,2	119 700
4. NIPPON LIFE	Japon	68,0	2,7	68 750
5. CGNU	Grande-Bretagne	61,5	−2,6	72 750
6. GENERALI	Italie	53,3	1,3	57 450
7. STATE FARM INSURANCE	Etats-unis	47,8	0,4	78 500
8. DAI-ICHI MUTUAL LIFE	Japon	46,3	0,3	59 900
9. AMERICAN INTL GROUP	Etats-unis	45,9	5,6	61 000
10. PRUDENTIAL	Grande-Bretagne	43,1	1,0	21 950

AUTOMOBILE

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. GENERAL MOTORS	Etats-unis	184,6	4,4	366 000
2. DAIMLERCHRYSLER	Allemagne	152,4	7,9	416 500
3. FORD MOTOR	Etats-unis	141,0	3,5	346 000
4. TOYOTA	Japon	106,0	5,4	215 650
5. VOLKSWAGEN	Allemagne	78,8	1,9	324 400
6. FIAT	Italie	53,2	0,6	223 950
7. NISSAN	Japon	49,1	2,6	133 800
8. PEUGEOT	France	40,8	1,2	172 400
9. HONDA	Japon	38,5	0,4	115 500
10. RENAULT	France	37,1	1,0	166 114

BANQUES

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. CITIGROUP	Etats-Unis	111,8	13,5	237 500
2. DEUTSCHE BANK	Allemagne	67,1	4,5	97 400
3. JP MORGAN CHASE	Etats-Unis	60,0	5,7	98 250
4. CREDIT SUISSE FIRST BOSTON	Suisse	59,3	3,4	80 550
5. BANK OF AMERICA	Etats-Unis	57,7	7,5	142 700
6. BNP PARIBAS	France	57,6	3,8	80 500
7. MIZUHO[3]	Japon	52,1	1,9	ns
8. HSBC	Grande-Bretagne	48,6	6,6	161 600
9. UBS	Suisse	47,3	4,6	71 000
10. MORGAN STANLEY DEAN WITTER	Etats-Unis	45,4	5,4	62 700

BIENS DE CONSOMMATION

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. PHILIP MORRIS	Etats-Unis	80,3	8,5	178 000
2. PROCTER & GAMBLE	Etats-Unis	39,9	3,6	110 000
3. PREUSSAG	Allemagne	21,8	0,3	79 950
4. JAPAN TOBACCO	Japon	20,6	0,4	40 200
5. BAT	Grande-Bretagne	35,1	1,0	64 300
6. MCDONALD'S	Etats-Unis	14,2	1,9	364 000
7. EASTMAN KODAK	Etats-Unis	13,9	1,4	78 400
8. KIMBERLY CLARK	Etats-Unis	13,9	1,8	66 300
9. FUJI PHOTO	Japon	13,0	1,0	70 750
10. L'ORÉAL	France	11,7	0,9	48 250

BIENS INTERMÉDIAIRES

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. THYSSEN KRUPP	Allemagne	35,9	0,5	193 300
2. BASF	Allemagne	33,7	1,2	103 300
3. BAYER	Allemagne	29,0	1,7	122 [illegible]
4. DU PONT DE NEMOURS	Etats-Unis	28,2	2,3	93 000
5. INTERNATIONAL PAPER	Etats-Unis	28,2	0,1	117 000
6. SAINT-GOBAIN	France	27,0	1,4	168 200
7. NIPPON STEEL	Japon	24,8	0,2	52 250
8. ALCOA	Etats-Unis	23,0	1,5	142 000
9. DOW CHEMICAL	Etats-Unis	23,0	1,5	41 [illegible]
10. GEORGIA PACIFIC	Etats-Unis	22,2	0,5	80 000

DISTRIBUTION

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. WAL-MART[4]	Etats-Unis	193,3	6,3	1 244 000
2. CARREFOUR	France	60,9	1,0	325 000
3. AHOLD	Pays-Bas	52,4	1,1	248 [illegible]
4. KROGER[4]	Etats-Unis	49,0	0,9	305 000
5. METRO	Allemagne	44,0	0,3	225 000
6. SEARS ROEBUCK	Etats-Unis	40,9	1,3	323 000
7. KMART	Etats-Unis	37,0	−0,2	252 000
8. TARGET[4]	Etats-Unis	36,9	1,3	215 [illegible]
9. ALBERTSON'S[4]	Etats-Unis	36,7	0,8	235 000
10. REWE	Allemagne	34,8	0,3	179 000

(1) Exercice clos fin mai 2001, (2) Exercice clos au 30 juin 01, (3) Né de la fusion de DKB, Fuji Bank, IBJ et Yasuda Trust Banking.
(4) Exercice clos au 31/01/01.

Les grandes firmes mondiales

Les premiers groupes par secteur en 2000

(en milliards de dollars)

ÉLECTRONIQUE-ÉQUIPEMENT TÉLÉCOMS

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. HITACHI	Japon	67,8	0,8	323 800
2. SONY	Japon	58,5	0,1	181 800
3. SAMSUNG ELECTRONICS	Corée du Sud	38,5	5,3	77 000
4. MOTOROLA	Etats-Unis	37,6	1,3	147 000
5. LUCENT	Etats-Unis	33,5	1,2	126 000
6. NORTEL	Canada	30,2	– 3,4	94 500
7. ERICSSON	Suède	29,8	2,3	105 100
8. ALCATEL	France	29,5	1,2	130 000
9. NOKIA	Finlande	28,5	3,7	60 300
10. CISCO[1]	Etats-Unis	22,3	– 2,7	34 000

ÉQUIPEMENTS ÉLECTRIQUES

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. GENERAL ELECTRIC	Etats-Unis	129,8	12,7	313 000
2. SIEMENS[2]	Allemagne	81,8	1,9	450 000
3. MATSUSHITA	Japon	69,4	0,4	292 800
4. MITSUBISHI	Japon	37,4	1,1	116 700
5. PHILIPS	Pays-Bas	35,5	9,0	219 400
6. TYCO INTERNATIONAL	Etats-Unis	28,9	4,5	202 000
7. ALSTOM	France	23,0	0,2	143 000
8. ABB	Suède/ Suisse	22,9	1,4	160 800
9. EMERSON[2]	Etats-Unis	15,5	1,0	123 400
10. ELECTROLUX	Suède	12,5	0,5	87 100

INFORMATIQUE

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
IBM	Etats-Unis	88,4	8,10	316 300
HEWLETT-PACKARD	Etats-Unis	48,7	3,70	88 500
NEC[3]	Japon	44,3	0,50	149 900
COMPAQ	Etats-Unis	42,4	0,50	82 350
INTEL	Etats-Unis	33,7	10,50	86 100
6 DELL	Etats-Unis	31,9	2,30	40 000
7 TOSHIBA[3]	Japon	30,3	1,50	188 000
8 FUJITSU[3]	Japon	27,3	0,03	187 400
9 MICROSOFT[4]	Etats-Unis	25,3	7,30	39 100
10 EDS	Etats-Unis	19,2	1,10	122 000

MÉDIAS COMMUNICATION

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. AOL TIME WARNER	Etats-Unis	36,2	– 4,3	88 500
2. NEWS CORP[4]	Australie	25,5	– 0,5	36 000
3. WALT DISNEY	Etats-Unis	25,4	0,9	120 000
4. VIVENDI UNIVERSAL	France	24,5	1,5	75 500
5. VIACOM	Etats-Unis	20,0	– 0,8	133 830
6. BERTELSMANN[4]	Allemagne	18,8	0,9	82 150
7. DENTSU	Japon	16,4	0,4	11 000
8. DAI NIPPON PRINTING	Japon	12,1	0,3	34 100
9. LAGARDÈRE GROUP	France	11,9	0,5	43 900
10. TOPPAN PRINTING	Japon	11,7	0,1	32 150

PÉTROLE

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. EXXON MOBIL	Etats-Unis	210,4	17,7	99 600
2. ROYAL DUTCH/SHELL	Pays-Bas/ G.-B.	149,1	12,7	90 000
3. BP AMOCO	Grande-Bretagne	148,1	11,9	107 200
4. TOTALFINAELF	France	107,6	7,2	123 300
5. PDVSA	Venezuela	53,7	7,2	45 500
6. TEXACO[5]	Etats-Unis	51,1	2,5	19 000
7. CHEVRON[5]	Etats-Unis	50,6	5,2	34 600
8. SINOPEC	Chine	45,3	0,2	1 173 900
9. ENI	Italie	45,1	5,4	69 900
10. REPSOL	Espagne	42,9	2,3	37 200

PHARMACIE

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. MERCK	Etats-Unis	40,4	6,8	69 000
2. PFIZER	Etats-Unis	29,5	3,7	90 000
3. JOHNSON & JOHNSON	Etats-Unis	29,1	4,8	98 500
4. GLAXOSMITHKLINE	Grande-Bretagne	27,4	6,4	107 500
5. NOVARTIS	Suisse	21,8	2,3	68 000
6. AVENTIS	France	20,9	– 0,1	92 450
7. BRISTOL- MYERS SQUIBB	Etats-Unis	18,2	4,7	51 150
8. PHARMACIA	Etats-Unis	18,1	0,9	59 000
9. ROCHE	Suisse	17,1	5,2	64 750
10. ASTRAZENECA	Grande-Bretagne	15,8	2,5	57 000

SERVICES COLLECTIFS

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. ENRON[6]	Etats-Unis	100,7	0,9	40 000
2. E.ON	Allemagne	87,6	3,6	186 800
3. RWE[4]	Allemagne	59,0	1,6	170 000
4. DUKE ENERGY	Etats-Unis	49,3	1,7	23 000
5. STATE POWER	Chine	42,6	0,[illegible]	1 137 000
6. TOKYO ELECTRIC POWER[3]	Japon	41,6	1,0	41 400
7. SUEZ	France	32,5	1,8	175 000
8. EDF	France	32,3	1,0	117 250
9. DYNEGY	Etats-Unis	29,4	0,5	6 000
10. VIVENDI ENVIRONNEMENT	France	24,8	0,6	215 350

TÉLÉCOMMUNICATIONS

NOM	NATIONALITÉ	CA 2000	RÉSULTAT NET 2000	EFF. 2000
1. NT&T[3]	Japon	92,1	4,3	222 000
2. AT&T	Etats-Unis	65,9	4,7	[illegible]
3. VERIZON	Etats-Unis	65,4	11,8	263 500
4. SBC COMMUNICATIONS	Etats-Unis	51,4	7,9	220 100
5. WORLDCOM	Etats-Unis	39,1	3,9	90 000
6. DEUTSCHE TELEKOM	Allemagne	38,4	5,5	147 000
7. FRANCE TELECOM	France	31,5	3,4	188 900
8. BT[3]	Grande-Bretagne	30,8	– 2,7	137 000
9. OLIVETTI	Italie	28,2	– 0,9	120 900
10. TELEFONICA	Espagne	26,3	2,3	148 700

[1] Exercice clos au 31 juillet 2001. [2] Exercice clos en septembre 2001. [3] Exercice clos au 31 mars 01. [4] Exercice clos au 30 juin 01. [5] Fusion en octobre 2001. [6] En faillite depuis le 2 décembre 2001.

Chapter III

Money and the theories of functioning of the capitalist economy

- Let us recapitulate the ideas relative to where money intervenes in the proress of production, circulation and reproduction in a capitalist economy, as a monetary exchange economy.

- Firstly, the very process of social production takes place through the cycle of social capital. Such cycle starts by capital in its <u>money</u> form to be transformed, at a first stage in the proress of circulation, into productive capital having the physical form of human and material forces of production. At the next stage, that of production, productive capital acts to produce, through labour, a quantity of commodities having a value superior to the value with which production has commenced. These commodities materialise commodity capital. To realise the objective of capital, that is <u>monetary</u> profit, commodity capital has to be transformed, through a second stage of

the proress of circulation, into money: capital regains its money form, with the hope that it will be in larger, quantity. Production takes place, then, through the cycle of capital which starts by money to end in the money form.

- Secondly, in the world of distribution, shares of different social classes figure first in monetary terms, as incomes whose equivalent in real terms (commodities, consumption and production ones) depends on the level of prices at the moment of spending such incomes.

- Thirdly, in the world of commodities, which are products destined for the market, if the act of exchange starts by a commodity in its real form, this act cannot be completed but through the utilisation of money, as a measure of value and hence a medium of exchange. The act of exchange implies, for its decision to be taken and for its realisation, the existence of prices which are a monetary phenomenon.

- Fourthly, in the would of capital, real capital come to be represented by titles, stocks and bonds whose possession means a right either to share in the monetary profit of the enterprise or to obtain a monetary interest. These titles

become themselves commodities to be circulated, through purchases and sales, on the financial market, for monetary prices. On such market, the demand for money to effectuate the financial transactions, constitutes an important part of the total monetary demand.

- Fivthly, in the world of the economic surplus whose most important part is the part devoted to social reproduction at an extended level, the surplus must have both forms: a real form (consumption and production commodities whose utilisation can either create a new productive capacity or permit the utilisation of an already existing capacity) and a money form whose expenditure materialises the act of investment. In other words, the economic surplus must have, for reproduction to take place, a double form: a real form and a money form, a part of each will be an accumulated capital, first in money form, money capital, and second in physical form, for the creation of an additional productive capacity.

- Sixly, in the world of money, which started its social existence in the exchange economy as a commodity, having its use-value and its value, it ends, in the world of

commodities, being itself a commodity, having no use-value (as in the case of fiat paper money or the credit money) but having a value in exchange, a purchasing power thanks to the historically acquired general social acceptance in the proress of circulation. This money becomes a commodity, object to exchange acts, in a specific Market of money, which implies a monetary price for the use of money, that is the rate of interest. In this world, money is created to be circulating in the world of production, in the world of commodities, in the world of capital, in the world of reproduction, and finally back to the world of money itself.

- We hope that we can see now, how the circulation of money, in monetary and financial forms, not only interacts with the different phenomena of the real economy (production, distribution, exchange and reproduction) but also interlaces with the different aspects of such real economy - Moreover, in such a complex economy, the majority of the economic decisions are taken first in monetary terms. Taken? Yes. But their effectuation and realisation cannot be but in the realm of real economy.

- To what extent, then, and in which modality does the existence of money and monetary institutions affect the functioning of the capitalist economy with its inherent possibility of contradiction between the immediate objective of the economic activity, which is the realisation of monetary gains, especially monetary profit, and its final objective which is the satisfaction of the needs of the society's members, a satisfaction that should be realised in real terms?

- The answer to such question differs from one school of economic thought to the other. The most popular, though not the most profound nor the most innocent, is the keynesian one; an intellectual product of the interaction between thorough theoretical formation and knowledgeable participation to social praxis; as personalised in J-M. Keynes, the cultivated economist who lived, wholeheartedly, three of the most terrible events in the capitalist history; two world wars separated by the great depression of the 1930's. He elaborates, factually against the already experienced intervention of the state vis-à-via the problem of unemployment and,

theoretically, against the psychological background of the neo - classical vision; against that, Keynes elaborates a macro-economic image of the working of the capitalist economy in the short term, an image based on the neo-classical price theory, but with the deliberate dropping of the hypothesis of the neutrality of money, and on a serious tentative to integrate money to his economic model. The whole theoretical building was erected in the social psychological atmosphere of terror provoked by the Great Depression.

- For the functioning of the national economy as a whole, the objective of investigation is to find out how the economic proress performs during a period of time (usually a year) with a result materialised in quantities of goods and services representing the social product (if the result is expressed in real terms) and the national income (if the result is expressed in monetary units on the basis of a certain level of prices). The object of interest here is the whole national economy and not only one of its cellular units. The theoretical analysis carried out with this

preoccupation is a macro - economic analysis, as distinguished from the micro - economic analysis.

- In the proress of macro - economic analysis, the emphasis may be put on the real aspects of the economic actively, whose output would be measured in physical units, or on the monetary aspects of such activity, with the product measured in monetary units. In the first case, the analysis will be a real analysis; in the second, it is a monetary analysis. The ideal is to integrate both real and monetary aspects of the economic activity in their dialectal interaction.

- The Keynesian theory of the functioning of the national economy is the product of one version of the macro-economic analysis related to the capitalist economy. Its subject matter is:

  - The capitalist economy at a certain stage of its historical development, the stage of monopolistic capitalism, in transition towards the phase of the transnational oligopolies.

- The capitalist economy with the interest in the advanced capitalist economies only, the underdeveloped capitalist economies were not taken into consideration.

- The capitalist economy, with the abstraction from its structure, the emphasis being put on the sphere of circulation.

- The capitalist economy, taking its mode of organisation and the main characteristics of its productive apparatus as given.

- The capitalist economy, according to a macro-economic method of analysis but based on a certain vision of "value" and prices, that of the neo-classical school, as elaborated in terms of psychological mode of the individuals behavior in their "relation" to commodities to cosume or to be used as "factors" of production.

- It is important to remember that Keynes' analysis in not <u>the</u> macro - economic analysis, but only <u>one</u> of different versions of the macro-economic analysis relative to the

capitalist economy (See the analysis of the Tableau Economique of François Quesnay, the classical vision concerning the working of the capitalist economy according to the action of the law of value and prices and K. Marx's analysis of reproduction schemes[1].)

Having to do with the working of the whole national economy, whose total outcome is supposed to face a) the community consumption needs b) the public units needs & c) the needs of future generations in terms of a minimum of means of production to be legated by the actual generation; having to deal with this, the concepts of **social product and national income** become of vital importance: their significance must be precised, in what sorts of economic activity they are produced, the different angles of seeing them (angles of their production, the incomes generated and the utilisations), and how they could be evaluated. This evokes many questions relative to both the economic theory and the

(1) See in this respect, M. Dowidar, Principles of Political Economy, vol 1, the Foundations, Elhalaby, Beruit, 2001 (in arabic) - M. Dowidar Less schemas de reproduction et la methodologie de la planification socialiste, Tiers - Monde, Alger, 1964.

social accounting system, with the idea of **price-index** they imply

- Let us turn now to M.J. Keynes theoretical model of the working of the capitalist economy. To grasp the real meaning of the model, our study must cover:

- the historical context of Keynes' analysis,
- its objective,
- its methodological characteristics,
- its basic hypotheses,
- the model itself, an overall view,
- its analytical tools, and
- possible critical remarks on the analysis.

- For the **historical context** of Keynes' analysis:

a) - **Factual context:** characterised by:

- an advanced capitalist economy: mainly industrialised, having especially a developed industrial basis - overwhelmingly monitised - a great majority of labour force as wage labourers.

- in the depression phase of the business cycle: wide unemployment of workers - idle material productive capacity - huge inventories of commodities - monetary indicators sloping downwards: prices, rates of interest, profits, wages ...

- in all, all conditions of production are satisfied except the incentive to produce on he side of the entrepreneurs whose auticipations concerning future monetary profit are pessimistic.

b - <u>For the theoretical context:</u>

- necessity of the distinction between classical, Marxist and neoclassical theories on the problem. Keynes put them all, misleadingly, in one basket despite qualitative differences with respect not only to value and prices theories but also to the mode of action of the capitalist economy and the business cycle.

- academic and official milieux dominated by the neo-classical ideas - adoption of Say's law: supply creates its own demand, hence no possible unbalance between them (no economic gluts) - if unemployment exists it is either voluntary (by workers) or because of imperfections of the labour

market (state intervention or action by the trade unions) - accordingly, the system is capable, if left to its own, to realise equilibrium at the full employment level - hence, state should not intervene.

- Real history, with the "Great Depression", discredits these theses - the state in many Western economics started to intervene effectively with the purpose of facing the depression, especially the situation of unemployment and the conditions of misery it provoked.

- In this historical context, factual and theoretical, Keynes writes, in the very circumstances of the great depression, his "General Theory of Employment, Interest and Money" to be published in in 1936. In this book, Keynes elaborates, on the basis of previous economic thinking, a specific macro-economic theory concerning the functioning of the capitalist economy, with an eye on the law of its development through economic fluctuations, i.e, through crises. Before dealing with such theory, it is of vital importance, for its understanding, to spell out Keynes' vision of the "economic problem".

- Rather than conceiving **the "economic problem"** in a sweeping unscientific manner as a problem of "Scarcity", Keynes perceives the problem **historically,** i.e, as a problem which manifests itself differently in each of the different historical social formations. According to him (see, Essays in Persuasion, ch. IX and General Theory, Ch XIII), for the **advanced capitalist economy,** the economic problem (as expressed in desires, unemployment, poverty and economic struggle between classes and nations) is **an organisational one.** For, "the occidental world possesses **already** the resources and the techniques which permit to resolve the economic problem **if** we can create the organisation for their utilisation." In such economy, the enterpreneurs do not reason but **in monetary terms;** "the firm does not have in its existence any objective other than to terminate with more **money** than the amount it started with. And, it is the enterpreneurs, rather than the consumers who dominate the decision - making in the monetary economy." Accordingly, the adequacy of production is not in itself the problem in the advanced industrial economies. The American farmers can produce engouth not only for feeding half of the world population but to retain a surplus as well. Modern industry

can produce in a so abundant manner that the enterprises form monopolies to limit production and "rationalise" the market so that their activities remain **profitable.** Here lies **the contradiction: an economy of profit maximisation is not an economy of production maximisation,** and, hence, not an economy of employment maximisation. This is the contradiction as it shows itself at the level of utilisation of the already available productive forces, that is at the level of the **production** of profit. At the level of its **realisation** through the sale of commodities produced, the limitation appears, as it will be clear from Keynes' theory, at the moment of income distribution, in the contradiction between profits and wages, the latter being the income determining (with the prevailing level of prices) the purchasing power (and hence the demand) of the great majority of the population, with its relative weight in the total demand in the national economy[1].

- As for the **objective of the Kynesian analysis,** it is, as stated clearly in his major General Theory ....," to study the

(1) Both, the class monopoly of decision making concerning the pattern of utilisation of productive forces, and the relatively uneven pattern of income distribution are genetically related to the class control over the means of production.

forces that determine changes in the level of aggregate product and employment. Here, the matter is not limited to the employment of the labour force only but the employment of all the production forces, the material ones included. Looked at from a different angle, Keynes attempts to find out why the capitalist economy cannot use fully all the productive forces at the disposal of the society, leaving some of them in a state of unemployment for the labour force and of idleness for the material resources.

- The essential of Keynes' findings can be presented in the form of a **theoretical model** of the short-run functioning of the national economy. To grasp the real significance of the model, and its limits, we should explicit first the main methodological characteristics of Keynes' analysis as well as its basic hypotheses.

- As for the main **methodological characteristics** of Keynes' analysis, we can explicit at least four:

- Firstly, the analysis of Keynes represents a sort of macro-economic analysis, i.e., concerning the national economy as composed, according to him, by a number of aggregated

economic units (the enterprises, the households, the savers, the investors, the state), each fulfilling an economic function (production, consumption, saving, investment, the role of the state) whose result could be materialised in an aggregated monetary quantity (income, consumption, savings, investment, public finance). The emphasis is put on the relations between these monetary aggregates.

This macro-economic analysis is based on the neo-classical theories of prices and distribution of incomes. It takes their theories of wages and profits as they are; as a part of the marginal productivity theory of distribution. This means that Keynes takes the theory of the relation between capital and labour as it is in the neo-classical thinking. As far as he refuses to reconsider this way of coneiving this relation, it was necessary that he gives his macro-economic analysis a psycholgoical flavour in dealing with "propensities" to consume and save, the "incentive" to invest and the "preference" of liquidity, but in taking all these "tendencies" for the community as a whole.

- Keynes' analysis is a **short-run** analysis, interested in the functioning of the national economy in the short-run, that is

the run which witnesses one or two phases of the business cycle, especially crisis and depression. He does not interest himself in the problems of the long-run development of the national economy. For, faced with the great situation of the depression, priority should be given to the present, as, "in the long-run we are all dead"!!

- Keynes' analysis is effectivated in terms of **monetary flows:** the emphasis is put on the **sphere of circulation** and on its monetary aspects, for economic decisions are taken, especially by the enterprises as the main decision-makers, in monetary terms with the aim of realising monetary profits. They carry out a monetary economic calculation. This monetary accounting of the capitalist firms suffers from a narrowness in its horizon, compared with the wideness of the productive capacities of an advanced capitalist economy of his time (imagine how wide it would be now!). Such accounting system can never lead to a harmony between private and society's interests.

- Finally, from the viewpoint of the time horizon of the phenomenon subject to the analytical work, the analysis of Keynes is of **a comparative static** nature. In this type of

analysis, the economic system is conceived at a **point of time,** the conditions of its equilibrium at this point of time are studied Then a period of time is allowed to pass, at the end of which the conditions of the equilibrium of the system are looked for, without considering what happens for the system during the period. Finally, the comparson is made between the first situation of equilibrium and its conditions and the second situation of equilibrium and its conditions, in order to find out the changes that the system has undergone, without investigating how these changes have occurred

- **The basic assumptions of the model:** it is necessary to point out the basic assumptions undergoing Keynes' theory of employment, because an appropriate evaluation of its results should be made in the light of such assumptions.

- Keynes assumes that the following factors are determined and remain unchangeable: the quantity and quality of capital, the state of technology, consumers' tastes and the social structure that defines the pattern of income distribution Effectively, they are all changeable, but in a long period of time And Keynes limits his analysis to the short-run, as he is

interested in the utilisation of the already existing productive forces.

- Keynes assumes the dominance of perfect competition in an economy where the entepreneur seeks to maximize profit. In this way, Keynes ignores the problem of the monopolisation of the economic activity and its effect on the functioning of the national economy. A matter which would largely affect the theoretical results of his analysis and consequently, the effects of the economic policy based on such theoretical result. Keynes assumes also that the national economy is a clesed one, that is an economy that has no economic relations with the rest of the world.

- Keynes assumes an economy where the enterprises are integrated in the sense that each enterprise carries out all the operations necessary for production: from the production of raw matevials up to the retail trading of the product. In this way, Keynes limits the contradictions between the different sorts of capital (financial capital, industrial capital, commercial capital .....) as well as those which excist between the parts of one sort of capital.

- Keynes assumes that the units of labour are homogeneous, in the sense that they are equal in efficiency. As he is carrying out an analysis to study how the already existing productive forces could be used, Keynes assumes that the labour force is the only changeable input of production.

- Finally, Keynes assumes that the rates of money, wages and prices remain constant, that is to say that the "value" of money does not change.

- On the basis of these assumptions, Keynes builds up his theoretical model to explain the factors determining the level of the economic activity at a national scale, these factors including the relevant monetary one. The outcome will be his "theory of employment".

- **The theory of employment: an overall view:**

- The neo-classical economists interested themselves in **only one** of the different positions relative to the level of economic activity, the level of **full employment** for the productive forces, human as well as material. This was the reason why their theory of employment was considered as a **partial** one, as it ignored the other positions where the levels of economic

activity are, associated with levels of employment, lower than that of full employment. Keynes' attempt was to build up a **general** theory covering all the possible hypotheses concerning the level of economic activity, since employment could be determined at different levels among which would be that of full employment. For this reason, he called his theory **"the general** theory of employment and income".

- It might be useful to spell out, at the ontset, the **basic principal** of Keynes' theory called **the principle of effective demand.** This principal implies:

- that total employment depends upon total demand (i.e, the totality of demand for all sorts of commodities, material as well as services).

- that unemployment (for the labour force) and idleness (for the physical productive capacity) result from the inadequacy of the total demand.

- with the increase of the volume of employment, the level of income rises.

- with the increase of real income of the community, its consumption also increases, but with less than the increase in income.

- as income is used for the purchase of both consumption and investment goods, it will be necessary, in order to have a level of demand high enough to realise the increase in employment, that investment increases by an amount equal to the difference between income and the demand for consumption goods.

- To understand this principal, it must be put within the framework of Keynes theory on which we will thraw a general look, at a first stage, to see its conceptual tools, at a second stage.

- According to Keynes' theory, the level of employment (or of output or income) in determined by the intersection of **total demand** and **total supply,** that is by what Keynes calls the function of total demand and the function of total supply. The adjective "total" signifies that we are dealing with the totality of the national economy, that is, by all what is demanded and all what is supplied.

- As for the **total supply,** the enterpreneurs (in all the branches of the national economy) produce to sell and realise monetary profit. If they anticipate (and anticipations play a vital role in the theoretical system of Keynes) that they will receive revenues at a future date (when they will be selling their commodities), they would spend, presently, on the purchase of the different inputs of production, especially on the purchase of labour power. Hence, we can say that for each level of anticipated revenues corresponds a level of resource utilisation, i.e, of employment. We will have, accordingly, a sort of regular relation between the number of workers that the entrepreneurs desire to employ and the total revenue they anticipate. This relation can be presented, graphically, by an employment curve as determined by the function of anticipated revenues.

- For the **total demand,** if the anticipated revenues determine the **decisions** of employment, these decisions, when executed lead to the production of material commodities and services and become the occasion for the creation of monetary flows representing the **incomes** of the owners of the productive forces: flows of money wages, flows of money rent, flows of

interest and flows of profits. These incomes could be spent on the purchase of final consumption commodities, and, through monetary saving, on the purchase of investment goods. Accordingly, a part of these incomes will be devoted, by the individuals, to the purchase of consumption commodities, to be called the **private demand for consumption.** In general: the bigger will be the volume of employment, the higher the monetary income, the larger would be the increase in the private demand for consumption. Another part of money incomes will be devoted by the individuals to the purchase of investment goods, representing a **private demand for investment** A third part of revenueus goes to the state (either directly or through taxes and state borrowing) to be used by it for the purchase of consumption and investment commodities, representing a **public demand for consumption** and a **public demand for investment:** at each level of employment the total of the private expenditure on consumption + the private expenditure on investment + the public expenditure on consumption and investment, the total of these represents the total demand. The relation between total expenditure and total employment is called the **function of total demand:** it tells us that the level of total

employment is determined as a function of the total expenditure. This relation could be presented graphically to give the curve of total demand.

- The intersection of the curve of total supply with the curve of total demand determines **the level of employment that realises the maximum of profit for the entrepreneurs.** It is the level at which are effectively realised the revenues anticipated by the entrepreneurs, a matter that leaves them with no incentive to change their policy of employment. We find ourselves here in **the general equilibrium position,** a position indicating the volume of the effective employment realised at a point of time. **The total demand at this point of equilibrium is the effective demand.**

- The level of employment determined by the point of equilibrium cannot be higher than the level of full employment, i.e. higher than the employment that can be realised by the utilisation of all the labour force and all the material productive capacity at the disposal of the entrepreneurs in the short-run. But, nothing in the capitalist economy prevents the equilibrium level of employment from being inferior to the full employment level. As, the effective

demand which realises full employment is a special case representing the optimal position. If the effective demand is insufficient to produce this optimal position, equilibrium could be realised at a level of employment leaving a part of the available labour force in a state of unemployment at the existing level of real wages. Here lies **the essence of Keynes' theory.**

- On the side of the function of total supply, Keynes analysis has nothing to add. For, Keynes is interested in the functioning of the capitalist economy not at the rising stage of its development where the essential problems was how to develop the productive forces and to widen the productive basis of the society, but at the descending stage of capitalist development where the problem of overproduction imposes itself, the idle capacity becomes a chronic structural phenomenon and the social organisational of the prosess of production shows its inability to provide this process by the organisational framework that permits an efficient utilisation of the already existing labour force and material productive capacities. The problem at this stage becomes, from the

viewpoint of the capitalist enterprise, how to secure the demand which enables it to commercialise what it produces.

- What is new in Keynes' analysis is what he says about **the effective demand** on which depends the volume of employment and hence the level of national income. **How, then, this total demand is determined?**

- Thanks to employment, production takes place giving, on one hand a quantity of consumption and investment commodities, and creating, on the other hand, a certain money income accruing to the social classes engaged in the process of production - This total income represents the source of the total demand that could be directed to the purchase of consumption and investment goods. Accordingly, the total product would have a value equivalent to the total income oriented towards the expenditure on consumption and investment. If we assume that total supply is given, an assumption which Keynes makes, the main idea will be that employment is determined by total demand which is determined, in its turn, by the expenditure on consumption and investment. And, if we abstract, temporally, from public expenditure, the state's expenditure, total demand is

constituted by the private demand for consumption goods and the private demand for investment How each of these two ingredients of total demand is determined?

- **The individuals' demand for consumption** depends on the level of income they receive: in general, with the increase of this income, increases the demand for consumption, but at a rate usually lower than that of the increase of income; for consumption depends also on the **marginal propensity to consume,** a relation which indicates the part of the increase in income which would be devoted to increase consumption, at each of the levels of income. Here, the distinction should be made **between the average propensity to consume, which** shows the amount of income, be it 80 E.P. devoted to consumption when the income is 100 E.P. Here, the average propensity to consume is $^{8}/_{10}$. As for the marginal propensity to consume, it shows the part of the **increase** of income devoted to **increase** consumption. If income increases by 10 E.P., e.g, 7 E.P. out of them were devoted to consumption, the marginal propensity to consume is 70%.

Keynes considers that the increase in income is not entirely absorbed by an increase in expenditure on consumption in the

advanced capitalist economies. That is to say that the community's marginal propensity to consume is always less than one. In addition, Keynes considers this marginal propensity to consume as invariable in the short term.

- As for the **individuals demand for investment,** their investment decisions depend on profit expectations. These expectations repose on the evaluations of the individual investors concerning the **future** state of business. Accordingly, the demand for investment, being based on these individual expectations, characterises itself by the fact of being an **unstable** demand. This demand depends **on the incentive to invest.** This incentive to invest depends, in its turn, from the viewpoint of the decision-maker, on the relation between:

- **the rate of interest,** which the investor should pay if he borrows the money capital necessary for the investment project, or the rate he obtains if he places his money capital in a time bank deposit or in the purchase of bonds. Keynes considers **the rate of interest a purely monetary phenomenon.** It is determined, according to him, by the intersection of the demand for money (as a liquid asset,

demanded for different motifis (transactions, precautionary and speculation) and the supply of money, as determined by the monetary authorities of the economy, and

- what Keynes calls the **marginal efficiency of capital,** which expresses the relation between the ensemble of **returns expected** from the capital asset during its future life, this ensembe being evaluated at its present value (i.e the value at the beginning of the investment act), we say between these expected returns and the **supply price** of this asset, i.e, the price at which it is supplied or its opportunity cost. This marginal efficiency of capital is, effectively, the rate of discount which equalises the present value of the series of expected returns during the future life of the capital asset with the supply price of this asset

- Accordingly, the demand for investment is determined by a kind of balance effectuated by the investors between the marginal efficiency of capital and the rate of interest

- The level of employment is determined, hence, by the intesection of total supply and total demand, assuming that prices (money wages included) are constant. Such intersection realises the equilibrium point that determines

the level of product and income. But, it **is not necessary that equilibrium will be at the level of full employment:**

the equilibrium could take place at a level lower than that of full employment In this case the realised social product will be inferior to that which could be produced by using all the labour force and the material resources available in the society Full employment is not realised because total effective demand is not sufficient The difference between the realised total effective demand and total supply which correspond to the level of full employment, this difference manifests itself in a **deflationary gap** reflected in unemployment and idle capacity To reach the level of full employment, total demand must increase by increasing either consumption (private and public) or investment (private or public) or both of them As a general rule, it is possible, according to Keynes analysis, to increase the social product through the augmentation of total effective demand without changing the general level of prices as long as the economy does not reach the full employment level (assuming here the dominance of

competition, as we have seen while dealing with the basic assumptions of the model).

* as a **hypothetical** position, we can have our equilibrium position with a level of employment higher than that of full employment, when the **monetary** total demand exceeds the demand necessary for the realisation of full employment. The difference between total demand and total supply corresponding with full employment reflects itself in an **inflationary gap**, with general and continuous rise in prices (on the assumption that ours is a closed economy and that the national economy does possess resources big enough to realise the level of the potential equilibrium). The increase in the monetary demand reflects itself in a rise in the level of prices. This reduces the "value" of money (its purchasing power) and affects the real incomes of the different social classes and groups. some income groups can increase their monetary incomes and hence their real incomes or at least keep the latter unchanged despite the rise in prices, as it is the case with social strata receiving profits as income

Some other groups, like those receiving a constant money income or an income whose rate of increase will be less than the rate of price rise (like wages), will have their income decreased and reduce, accordingly, their expenditure on consumption. The decrease in total demand might continue until a balance between total demand and total supply at the level of full employment.

- **The rule is, hence, as long as the level of employment is lower than that of full employment, it will be possible to augment the social product (the national income) by increasing total demand, without a rise in the level of prices (assuming competition). Once the level of employment reaches the full employment level, any increase in (monetary) total demand would be reflected in a rise in the level of prices.**

- But, a rise in prices can occurs even before reaching the full employment level. This can happen, according to Keynes, in two cases:

* in the first case, the rise of price would be attributed to the non homogeneity of the "factors of production" and the fact that each doesnot represent a perfect substitute for the others. If the supply of one of these factors (skilled workers, e.g.) diminishes without the other factors being substitute for it, the price will rise in one of the branches of production because of this bottleneck. Given the interdependence between the branches of production, the price rise may spread from one branch to the other until it prevails in the national economy. In this case, inflation happens beside unemployment and idle material capacity.

* in the second case, the rise in prices is a attributed either to an increase in money wages demanded by trade unions and soon spread in the different production branches, or to the fact that certain firms would seize the occasion of an increase in the monetary demand for some commodity to raise the prices of their products, with the possibility that the rise spreads all over the national economy. To be able

to raise prices, these firms have to have some monopolistic control.

- In these two cases the inflationary phenomenon exists side by side with unemployment for a part of the labour force and idleness for a part of the material productive capacity. Apparently, it seems that Keynes means that in these two cases the level of employment would not be much lower than that of full employment. This position started to dominate the capitalist economies after the second world war (especially with the accelerated development of monopolies). But, it started to change qualitatively since the 1970's when advanced capitalist economies began to know rather law levels of employment, with a relatively high percentage of the labour force unemployed and the existence of excess capacity, both cohabiting high rates of inflation. Such situation cannot be explained if we limit ourselves to the short-run functioning of the capitalist economy. What is needed is a study of the whole movement of the capitalist economy in the very longrun to

find out the secular trend of such movement with its fluctutions in the short runs(1).

- Having seen the theoretical model of Keynes, it remains to see, in a more detailed way, the analytical tools of Keynes analysis.

  These are:

  - The function of total consumption.
  - The Incentive to invest and
  - The Multiplier and the accelerator.

  [See the selected readings on these tools]

- To read any theoretical work is to understand, to assimilate and to criticise it. For Keynes' work, we will limit ourselves, breifly to some remarks, on one hand, and some critical questions, an the other.

  - Keynes analysis shows that unemployment and excess capacity are real phenomenon of the capitalist economy, which means that the functioning of this

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(1) For this study, see M. Dowidar, Principles of Political Economy, Vol, III, The International Economy, El HALABI, Beirut, 2001.

economy implies major waste of productive forces, a matter which explicits the absence of economic rationality from the social viewpoint, though it might not be so from the viewpoint of the capitalist class

- Keynes analysis implies, at least tacitly, a certain disability of the neo-classical theory to confront the reality of the capitalist economy whether to understand it or to properly advice a state policy to correct the disturbances of its spontaneous functioning

- although adopting the neo-classical vision of the economic phenomena and its theory of prices, Keynes, while carrying out a macro-economic analysis, emphasising employment, considering labour force as the only variable in the short-run and measuring the level of economic activity by labour units, Keynes is led to accept that labour is the only source of value, though expressing this in a more or less neo-classical language· "Labour is the only factor of production"

- The deep understanding of the stock of exchange by Keynes and the role it plays in the capitalist economy merits to be thoroughly studied

For the critical questions

- a question concerning the possible divergence between the declared objective of the analysis (realising full enyoloyement) and the real one (Safeguarding the capitalist economy at the stage of its general crisis)

- a question realtive to the mode of reasoning how far the theoretical model is determined (in mathematical terms). that is how far it does imply a sort of circular reasoning (in terms of logic)"

- a number of questions relative to his assumptions

* taking the structure of the capitalist economy as given. with it the pattern of the distribution of income, how can we explain the "normal" existence of unemployment of excess capacity and of business cycles without evoking the pattern of distribution of

income and the contradiction between profit and wages?

* how could we assume the dominance of perfect competition with respect to a reality of monopolistic domination: in this reality, an increase in the monetary demand might lead monopolies to raise prices without increasing production, hence employment. The result, an increase in monopolies' profits without reducing unemployment. If the increase of the monetary demand comes from public expenditure, this amounts to putting public finance at the service of monopolies at the stage of the transformation of these monopolies to become transnational monopolies.

* assuming that wages and prices remain constant in the short-run ignores the monopolistic form of the economic structure and hence the inflationary nature of the functioning of the capitalist economy in the very long-run from the beginning of the 20th Century. This means that inflation could impose itself within stagnation

* a question concerning whether the period which witnessed a wide adoption of Keynesian economic policeis has cured the capitalist economy from unemployment or from the business cycles?

* a final question could be adressed not to Keynes but to the kynesian economists who used, during the post-war period, the Keynesian analytical tools to study the problems of underdevelgment, and looked for the Kynesian economic policies to elaborate programmes for "developing" the underdeveloped countries. The result was, as it is quite clear now, catastrophic.

Selected Readings

for

Chapter Three

Money and the theories of functioning of the capitalist economy

- Measuring soc al product, national income and living standards.
- Economic fluctuations and macro-economic analysis.
- Keynes, the General Theory of Employment, Income and Interest.
- The historical context: Factual and theoretical.
- The Keynesian theoretical model.

Keynes, in the history of economic thought.

Introduction to Economics

STEPHEN DOBSON
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OXFORD UNIVERSITY PRESS
1999

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CHAPTER 14

Measuring the economy: output and living standards

Economic statistics measure the performance of an economy and whether or not it achieves the macroeconomic goals discussed in Chapter 13. Economic statistics may also be used to develop and test economic theories in a way which was impossible when Keynes was writing in the 1930s. This chapter focuses on GDP, or **gross domestic product**, the first of the three statistics most frequently used by economists, commentators, and policy makers. Gross domestic product gives us the output of goods and services produced by the economy. In Chapter 15 we look at the Retail Prices Index, or RPI, which measures the cost of living, and at the unemployment rate.

Measuring output

The statistics as we know them now only began to be collected in a systematic way in Britain during the Second World War, when the government realized how important it had become to have a reliable indication of the output both of the economy as a whole and of the different sectors of the economy. The Central Statistical Office was set up early in 1941 and in the next few years the framework of the **National Income Accounts** was established. Although the range of statistics collected has grown, and the Central Statistical Office has recently become the Office for National Statistics, the ideas behind the National Income Accounts are unchanged.

Unfortunately there are differences of method in the way that some countries collect their statistics—the most striking being between the output statistics of the old Soviet bloc and those of other industrialized countries. Another difference lies in the accuracy of statistics, which can be a problem in the best-run countries but a much greater problem in the more dishonest or ill-organized. There can also be differences of emphasis, such as the focus until recently of the US figures on **gross national product** (GNP), while many countries pay more attention to gross domestic product (GDP). In spite of all these difficulties, comparisons using national economic statistics are made both between countries and over time.

GNP or GDP?

GNP is the output produced by factors of production owned by the residents of a country. GDP is the output produced by the factors of production within a country's boundaries,

whoever owns them. Most countries have enterprises owned by foreign individuals or companies: think for example of the Japanese-owned car plants in Britain or the Marks and Spencer shops in Hong Kong and Paris. The profits made by Nissan in Britain are included in the British GDP figures but that part of those profits which is sent back to Japan will appear as part of the Japanese GNP.

For many countries the difference between GNP and GDP is negligible, but for others it is very significant. A country which owns a number of large multinational companies, for example, or which has many citizens who have migrated abroad to find work and send money home to support their families, may have a higher GNP than GDP. Conversely, a country such as Mauritania has a much greater GDP than GNP because its most productive resource is the waters of the Atlantic Ocean, up to 200 miles offshore, whose fish are caught partly by foreign-owned vessels and sold to foreign buyers. Fish caught by foreign-owned vessels contribute to Mauritania's GDP and to other countries' GNP.

At the level of the economy of the whole world, total GNP is the same as total GDP. At the level of an individual country GNP is a better indicator of living standards and GDP is a better indicator of productive activity.

Three ways of finding GDP

You may have thought it odd that while we talk of measuring the value of *output*, the system used in the UK is called National *Income* Accounting. It is not so odd when you are familiar with the routes statisticians use to arrive at the output figures. GDP figures are used not only as a measure of an economy's total output, but also as a measure of total incomes in that economy and as a measure of the country's total spending on the goods and services produced. There are three ways of calculating GDP—the output method, the income method, and the expenditure method. How can this be so?

The circular-flow model can be used to explain these relationships. Figure 13.1 (in Chapter 13) was of the simplest form of the circular flow. From that diagram it is easy to see why income equals expenditure, and why expenditure equals the value of output. Does this work with a more realistic, and therefore more complicated, version? Figure 14.1 shows an economy, again with households and firms, in which the households do not spend all their income but

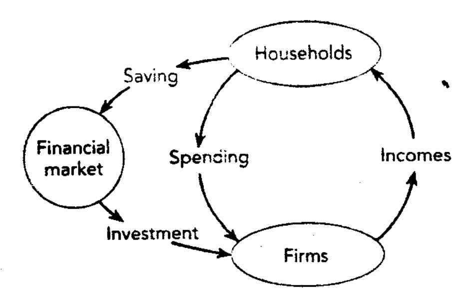


Figure 14.1. The financial sector and the circular flow of income

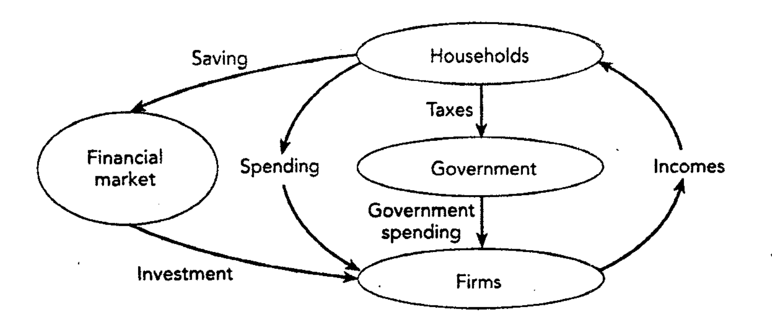


Figure 14.2. The government sector and the circular flow of income

save a proportion, and in which the firms spend money on new equipment. The firms' source of money for this investment is the financial market, which looks after the households' saving. In Figure 14.1 we show only the money circular flow, known as the circular flow of income, because at this stage we are not interested in the flow of goods and services. The money which goes into the financial market as saving does not circulate around the circular flow of income and is often described as a **leakage** from the circular flow, while the money invested by firms is in addition to the spending by households and is often described as an **injection** into the circular flow. If there were no investment by firms, but households continued to save, the circular flow would shrink and the size of the economy as indicated by total spending would become smaller.

The government takes part of people's income as taxes and indulges in some spending of its own; taxes reduce the spending power of households and so are another leakage from the circular flow. Government spending on goods and services becomes another injection into the circular flow. Figure 14.2 shows our economy with a financial sector and a government but no foreign trade. Again, if the leakages of saving and taxes were larger than the injections of investment and government spending, the circular flow would shrink.

Finally, the all-singing, all-dancing version extends the model so that the economy is open to foreign trade. Exports are goods and services produced by the domestic economy but bought and paid for by foreign buyers. The flow of goods and services is out of the domestic economy but the payment flows in, therefore exports are another injection to the circular flow of income. Imports, on the other hand, involve a payment leaving the domestic economy, while the goods and services come in. Imports, therefore, are a leakage from the circular flow of income. Figure 14.3 portrays this more complicated version. There is no reason why exports and imports should be equal. As with the previous versions of the model, the circular flow of income only stays the same size if the total flows in (injections) are equal to the total flows out (leakages). The injections and leakages are summarized in Table 14.1. (Another term in common use for leakages is **withdrawals.**)

In any time period, such as a year, the spending side of the circular flow of income, after its leakages and injections, equals the income side. The GDP figures measure both total spending and total income, but they also measure total output. The total spending on the goods and

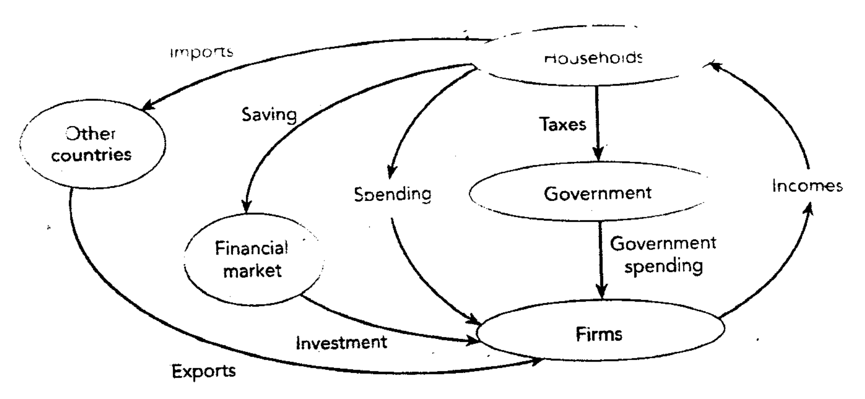


Figure 14.3. Foreign trade and the circular flow of income

Table 14.1. Injections and leakages (withdrawals) at a glance

Injections	Leakages
investment	saving
government spending	taxes
exports	imports

se ices produced i any time period in an econom il give the value of the output of the goods and services purchased, and the total incomes of the factors of production used in the production of that output will be another measure of the value of that output. So any of the three methods of measuring GDP should give the same answer. Unfortunately, in the real world rather than the world of theory the sum never quite add up because it is too difficult to collect such a vast array of statistics with complete accuracy. The necessary adjustment between the three totals is made by using what is quaintly known as the 'statistical discrepancy. Next we look in a little more detail at each of the three methods of computing GDP.

The output method

The **output method** adds together the value of the output of goods and services produced in the economy, during the appropriate time period. The great difficulty faced by this method of arriving at GDP is that many firms' output forms the **input of another firm**, so that the method of calculating the value of output must avoid **double-counting** if it is to give a meaningful figure for GDP. This is achieved by counting only **the value added** at each stage of the production process where value added is the difference between the value of the goods and services

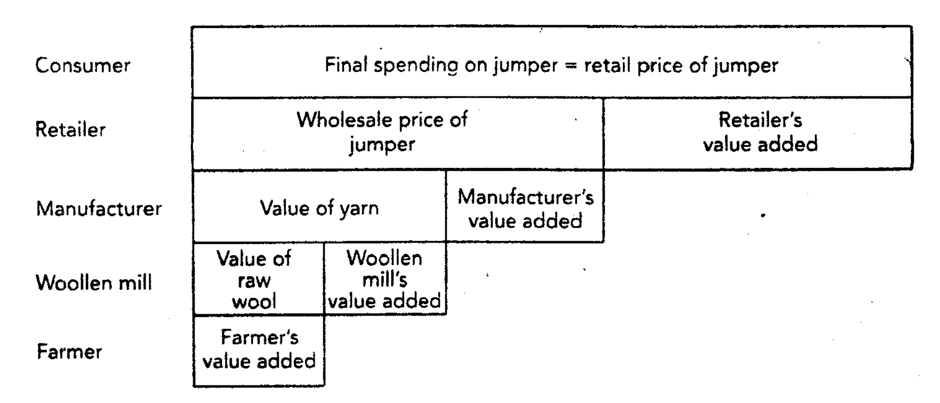


Figure 14.4. Total value added equals final expenditure

sold by a firm and the cost of raw materials and intermediate goods used in the production process. Value added is, in fact, the value of the work done by the factors of production and is equal to the sum of wages, rent, profits, and interest.

Figure 14.4 shows how value is added at each stage of the production of woollen knitwear. The wool is produced by sheep owned by a hill farmer who employs a shepherd. The farmer pays wages, rent for the land, and interest payments on a loan for the purchase of his Land Rover, and makes a profit. When the sheep are sheared and the wool sold the value of this sale is the farmer's value added. The wool is sold to a woollen mill, which washes, combs, dyes, and spins the yarn. Value is added during these processes and is reflected in the higher price received for the yarn than was paid for the raw wool. The cones of yarn are then sold to the knitwear manufacturer, who transforms the yarn into knitted garments, which are sold to the retailer at a much higher price than the cost of the yarn. Finally, the retailer provides the service of making the knitted clothes conveniently available in a range of sizes and colours on the high street. The retailer's mark-up on the wholesale price paid gives the value added at the retail stage. Only the sale of the finished garment counts as the sale of a final good; at all the other stages of the productive process the sales are of intermediate goods. When you buy yourself a jumper, the price you pay is the sum of all the value added at each stage of its production.

The income method

The **income method** aggregates all the incomes earned by the factors of production: labour earns wages, land earns rent, capital earns interest, and entrepreneurship earns profit. These standard categories used in economic theory correspond reasonably closely with those used in the National Income Accounts, which have four categories measuring income from employment, rent, gross trading profits and surplus, and income from self-employment. The first two are self-explanatory but the last two are less obvious.

The profits made by companies are either paid as dividends to shareholders or retained by the company. The word 'surplus' here refers to any excess of income over expenditure of publicly owned enterprises, which are now far fewer than they used to be. Municipally owned airports

are an example, as is the city of Hull's telephone system. Income from self-employment may include elements of wages, rent, and profit, and it would be too difficult to distinguish between these elements in many cases. The self-employed include partners in professional firms such as lawyers and accountants, as well as farmers, small shopkeepers, and mobile hairdressers.

The incomes above, when added together, give us the value of **national income**, a commonly used term which does not equal GDP or GNP, though it is closer to GNP. Two adjustments need to be made to get from GNP to national income. One adjustment lies in the distinction made between the terms 'gross' and 'net', and the other in the distinction made between market prices and factor cost.

The first adjustment involves **depreciation**: as new capital—plant and machinery—is used it begins to wear out and continues to wear out over its useful lifetime. Replacement of worn-out equipment is not new investment at all, except that in many cases the new equipment is more technologically advanced than the old. The figures in the national accounts for investment are in one sense misleadingly high because most investment includes an element of replacement of older capital goods. **Gross investment** less depreciation gives us **net investment**, just as gross national product (GNP) less depreciation gives us net national product (NNP). So,

$$\text{GNP} - \text{depreciation} = \text{NNP}.$$

NNP is at **market prices**. The prices of goods at final sale do not always accurately reflect the costs of the factors of production because many carry some form of tax such as Value Added Tax (VAT) or an excise duty, for example the tax levied on cigarettes in Britain. In some countries goods are subsidized by the state so that their prices are artificially low. The difference between the figure for NNP and that for national income lies in the net value of these indirect taxes and subsidies. While NNP is at market prices, national income is at **factor cost**, and gives a clearer picture of the value of the work done by the factors of production:

$$\text{NNP} - \text{indirect taxes} + \text{subsidies} = \text{national income}.$$

The expenditure method

The **expenditure method** gathers data on all the spending in the economy to arrive at **aggregate expenditure**. This is made up of spending by households on goods and services, or consumption (C), plus investment spending (I) by firms, plus government spending on goods and services (G), and the net result of exports (X) less imports (M); in symbols,

$$\text{GDP} = \text{aggregate expenditure} = C + I + G + (X - M)$$

Consumption forms by far the largest proportion of aggregate expenditure in the UK, at about two-thirds of GDP. Consumption includes household spending on durables such as cars and washing machines, which should last for several years; spending on goods that are used up more or less quickly, such as food, newspapers, and clothes; and spending on services such as hairdressing, dentistry, opera, and football games.

Investment was about 15 per cent of UK GDP in 1996 and is made up of spending by firms on additions to the capital stock of the country. It includes plant and machinery, office buildings, warehouses, and additions to firms' stocks of unsold goods or unused inputs.

Government spending includes all the spending on goods and services by both central and local government and forms about one-quarter of UK GDP. It includes defence, education

and health. It does *not* include government spending on **transfer payments**, such as pensions and other social security benefits, or subsidies to industry. These forms of spending are merely a transfer of purchasing power.

Net exports, or exports minus imports, are a tiny proportion of UK GDP because although about 30 per cent of GDP is exported, the size of imports is roughly similar. Net exports are frequently negative; that is, imports are greater than exports.

Some forms of spending are not included in aggregate expenditure because they are not spending on **final goods**. Spending on **intermediate goods** which go to make the final product would artificially inflate the size of aggregate expenditure if included, as would spending on second-hand goods.

Some limitations of official output figures

Economists and statisticians complain increasingly that the traditional methods of calculating GDP are becoming less reliable. There are plenty of data on the production of coal, grain, and clothing, but useful date about today's fastest-growing industries—computing, telecommunications, business services, and finance—are much harder to find. Called by some the 'weightless economy', these activities cannot be seen and are not easily numbered.

Another deficiency is the exclusion of unpaid services from the figures. These 'non-market' activities include do-it-yourself work; most housework, cooking, gardening, dress-making, and knitting; and all voluntary work. All of these produce outputs which would otherwise have to be paid for and, if bought, would increase the size of GDP. Estimates of the value of unpaid housework in industrial economies are that it is about a fifth of GDP. In less developed economies, particularly those with large subsistence economies, these unpaid activities are even larger in proportion to the official output figures.

Illicit activities are a further exclusion from the official statistics. These range from the highly profitable production and distribution of illegal drugs to the plumber who prefers to be paid in cash, so as to avoid paying tax.

Another difficulty with the official figures for GDP is that they add the costs of coping with pollution to the value of output. For example, when a tanker runs aground and spills its cargo of crude oil, the costs of salvage of the vessel and of cleaning up the effects of the spillage are counted as an addition to GDP. As economies grow the costs of pollution tend to become larger, but they are not in any sense adding to the well-being of the country. This brings us to consider what is meant by 'the standard of living' and how it may be measured or assessed.

Living standards

The **standard of living** is not a well-defined concept and it may mean different things to different people. Do the social science researcher, the district nurse, the archbishop, and the politician all mean the same when they use the term? The economist takes the national income figures as a starting point, but needs to be aware of their deficiencies. GDP is the figure most commonly used to measure a country's output and growth but national income, which is more closely linked to GNP than to GDP, is more useful when considering a country's standard of living. In practice, any of the three will be used.

There are two main kinds of difficulty with using output or income statistics as an indicator of living standards: these difficulties lie in omissions and in comparisons. We consider the

problems of omissions from the official statistics first. The preceding section on the limitations of output figures listed the 'weightless economy', the 'underground economy', and non market activities as contributions to output which are poorly recorded by the official statistics, or not recorded at all. Economic 'bads' such as pollution should be deductions from figures used to indicate living standards; instead they often lead to an increase in recorded output and income, as officially measured.

Output figures are unable to show how improvements in the quality of goods and services contribute to improvements in living standards: an automatic washing machine of the 1990s is far less time-consuming than an electric washing machine of the 1950s, with its small tub and mangle for squeezing water from the washing. The hours we spend in paid employment contribute to output figures, but we value our leisure time equally; no measure of the improvements in living standards associated with the gradual shortening of the working week is possible within the existing framework of output and income statistics.

The second area of difficulty lies in making comparisons, both over time and between countries, using output and income statistics. These figures express the value of output or income in terms of the current value of money, but the value of that money may change quite rapidly, sometimes even making comparisons between one year and the next meaningless. Comparisons over several decades in terms of current money are usually pointless. Such comparisons need to be made in **real terms** rather than using **nominal figures**, that is, after adjusting for any changes in the average level of prices over the time period of the comparison. This idea is explored more fully in Chapter 15.

Figures of output per head, or **per capita GDP**, tell us rather more about the relative living standards of two countries than the total figures for GDP, but they do not tell us how income is distributed within a country, and so still cannot give us the full picture. Also, ways of life vary around the world—on a small tropical island there is no need for layers of warm clothing and expensive heating. Output-per-head figures may give a quite misleading impression of the comfort and pleasure of life on a tropical island, when compared to life in a northern industrial country.

Finally, national statistics are presented in terms of national currencies but the purchasing power of different currencies may not be reflected by the official exchange rates. So even if all per capita GDP figures were expressed in US dollars the results could still be misleading. In an attempt to overcome this kind of problem *The Economist* has produced its own 'Big Mac index' for several years; this index gives a guide to the purchasing power of different currencies buying a standardized product available from McDonald's around the world.

Summary

1. GDP is the most commonly used measure of output.

2. GNP is a better indicator of living standards and GDP is a better indicator of economic activity in a country.

3. There are three methods of calculating GDP: the expenditure method, the income method and the output method.

4. Official figures exclude the value of both non-market goods and services and the underground economy.

5. Omissions from official statistics can make international comparisons of living standards less meaningful, as can differences between a country's exchange rate and its currency's internal purchasing power.

6. Rising prices (or falling prices) make comparisons over time misleading. Such comparisons must be made using figures in real terms.

Key terms

aggregate expenditure
consumption
depreciation
double-counting
expenditure method
factor cost
final goods
government spending
gross domestic product (GDP)
gross investment
gross national product (GNP)
income method
injection
intermediate goods
investment
leakage, or withdrawal
market prices
national income
National Income Accounts
net exports
net investment
nominal figures
output method
per capita GDP
real terms
standard of living
transfer payments
value added
withdrawal, or leakage

Review questions

1. Why are there three possible methods of calculating GDP?

2. What is the difference between (i) a statistic at market prices and at factor cost; (ii) GNP and NNP; (iii) intermediate goods and final goods? In each case, explain why the distinction matters.

3. What difficulties might you expect to meet when comparing living standards in China Brazil, Sweden, and Angola?

4. 'Never make the mistake of confusing GNP with gross national well-being.' Why not?

Further reading

- Mabry and Ulbrich, chapter 11
- Lipsey and Chrystal, chapter 20
- Sloman, chapter 14

CHAPTER 16

Macroeconomics and history

Well before the advent of economic statistics people were aware of widespread changes in their local and national economy. Sometimes they found a pattern to these changes; during the twentieth century improved statistics have given greater precision to analysis of the economy. In this chapter we consider, first, the pattern of changes in the economy over the business cycle and second, the way macroeconomic ideas have developed over the past two and a half centuries.

The business cycle

There can be marked swings up and down in the rates of unemployment and inflation. We now consider the patterns made by these fluctuations, as well as the accompanying changes in the **rate of growth of real output**, and bring all three together in this section on the **business cycle**.

Business cycles are the periodic up-and-down movements in economic activity, measured by fluctuations in real output, but reflected too by other macroeconomic variables. The business cycle is also known as the **trade cycle**.

The business cycle and real output

During the business cycle the growth of real output fluctuates around the long-term *trend* growth rate of real output; we look first at what this trend means. Over the past 160 years the average rate of growth of real GDP in Britain has been 2 per cent a year, which means that real GDP has doubled every 35 years. The average growth rate is the **trend** in real GDP. Should this trend continue, by the time each of us reaches the biblical span of threescore years and ten, the real GDP of the British economy should be four times as great as it was when each of us was born and, since the growth rate of the population is much lower, we should notice significant improvements in living standards over a lifetime.

Figure 16.1 illustrates fluctuations in the growth of real output around the trend over the course of two business cycles. There are four distinct phases to a business cycle: peak, contraction, trough, and expansion. Other frequently used terms are: **boom**, **recession**, **slump**, and **recovery**. To be precise, if real GDP falls (that is, the growth rate is negative) for two successive quarters economists call it a recession, and a very deep trough is known as a **depression**, though often the terms 'slump' and 'depression' are used interchangeably.

Although Figure 16.1 makes the business cycle look fairly regular, and somewhat predictable, in practice business cycles are irregular both in the size of the changes in the growth rate of real output, and in the length of the four phases.

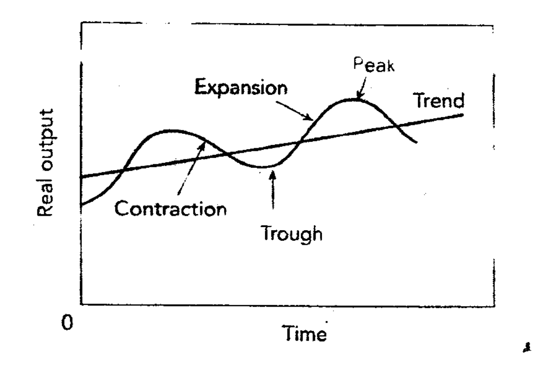


Figure 16.1. The business cycle

Unemployment over the business cycle

Changes in the unemployment rate are closely linked to changes in the rate of growth of real output, but they move in opposite directions and there is a time-lag—changes in real output precede changes in unemployment. The unemployment statistics are therefore **a lagging indicator,** of great interest and importance, but not as a pointer to what is likely to happen next to output. Norman Lamont, when Chancellor of the Exchequer in the early 1990s, was ridiculed by the man in the street for his insistence that he could see 'the green shoots of the recovery' of the economy from recession, when at the same time the unemployment figures continued to rise.

During the expansionary phase of the business cycle firms run down their stocks of unsold goods, their order books lengthen, they move to full-time and then overtime working, and eventually they take on more labour. During the contractionary phase order books become shorter, stocks of unsold goods begin to build up, overtime work disappears, some labour works short-time, and eventually some people are made redundant. Thus a rise in the growth rate of real output is followed some time later by a fall in the unemployment rate, and a fall in the rate of growth of real output is later mirrored by a rise in the unemployment rate. This is why the picture presented by the unemployment figures is not identical to that shown by the output figures, and why there is a time-lag.

Inflation and the business cycle

The relationship between changes in prices and in real output is less strong than that between unemployment and real output. Other things being equal, there is a tendency for prices to rise in the expansionary phase of the business cycle as shortages develop of skilled labour, perhaps and of some raw materials or key components. During the [illegible] fall as unsold stocks of goods build up and lower prices are used to try to shift these goods. Given a continuing underlying inflation, prices will rise faster in the expansion and more slowly in the contraction

The business cycle in perspective

The boom-and-slump pattern of the business or trade cycle has characterized market co-ordinated economic systems for at least two hundred years. (Centrally planned economies have different problems.) The pattern was recognized in the nineteenth century: Karl Marx analysed the business cycle and predicted that its swings would get ever larger and more catastrophic until workers would revolt, unable to take any more. In *Mary Barton* (1848), the novelist Elizabeth Gaskell gives a striking account of the effects of a downturn in trade on the lives of Lancashire cotton workers. As the wife of a Unitarian minister in Manchester, Mrs Gaskell visited the poor and had intimate knowledge of their lives during the 'hungry forties'.

Business cycles are unpredictable in both duration and size but after the Second World War governments felt that they should attempt to reduce the peaks and troughs, particularly because of their impact on employment. This **stabilization policy** had a mixed success and was largely abandoned in the 1970s when persistent and rising inflation, rather than unemployment, became the chief anxiety.

Explanations of the causes of the business cycle fall into three groups. The first group explores the role of investment in capital goods and suggests that fluctuations in investment cause larger fluctuations in output. This idea is explored further in Chapter 19, where it occurs as part of the third macroeconomic model we study. A second group of explanations focuses on the role of money and on the business cycle as a monetary phenomenon. There is a link between the money supply and economic activity—this idea receives more attention in Chapters 21 and 22. A third approach to the business cycle looks at the part played by unexpected shocks to the economy, for example from a change in technology or in relative prices. Since these shocks occur irregularly, this goes some way to explain the irregularity of business cycles.

A brief history of macroeconomic thought

The way philosophers and economists have thought about what would now be called macroeconomic problems strongly reflects the circumstances and times in which they lived, but, equally, the writings of these philosophers and economists have influenced the thinking of their contemporaries and of later generations. As we consider their ideas we need to be aware of their period and to weigh up the extent to which earlier ideas are applicable today.

Outline

Eighteenth- and nineteenth-century thinking on economics can be divided into two main schools: **classical economics** (1770–1850) and **neo-classical economics** (1850–1920). Classical economists were interested in both microeconomics and macroeconomics but neo-classical economists concentrated largely on microeconomic concerns, particularly marginal analysis and equilibrium theory. They accepted the classical economists' views on macroeconomic issues such as unemployment and growth.

In the twentieth century macroeconomic thinking was revolutionized by Keynes, who wrote and spoke widely on economics in the 1920s and 1930s. His ideas were not at first readily accepted but later had a major impact on economics and on government actions until well into the 1970s. He was critical of the policy makers of the time, who were, he thought, in the grip of damaging economic ideas from an earlier era.

In the 1970s and 1980s the focus of macroeconomics and of government macroeconomic policy was strongly influenced by the monetarist school, whose leading light was Milton Friedman.

In this brief survey of the development of ideas in macroeconomics we shall concentrate on the classical economists, point out some of the differences between Keynes and the classical economists, and say a little about monetarism.

The classical economists

The founding father of modern economics was Adam Smith (1723–90), a Scottish philosopher, whose book *The Wealth of Nations* (1776) has had a tremendous impact on subsequent thinking. Smith argued that market economies generally serve the public interest well and that the state should not interfere with the functioning of the economy.

Another very influential work was the *Essay on the Principle of Population as it Affects the Future Improvement of Society*, first published in 1798, by Thomas Malthus (1766–1834). Malthus argued that the combination of normal population growth and diminishing returns in agriculture would lead to starvation, if war or pestilence did not first reduce the population. In those days agricultural output was a far higher proportion of total output than it is today. Two reasons why Malthus's inexorable logic has not yet been proved right in more developed parts of the world are, first, that technological change has raised agricultural yields and, second, that population growth tends to fall as real incomes rise; but the conditions described by Malthus can still be seen in some of the poorest parts of the world.

The Napoleonic Wars finished in 1815 and were followed by recession and unemployment. Malthus became gloomy about the future as the capitalist system seemed unstable. He was the first to identify a lack of effective demand as a problem—the warehouses were full but people would not buy. Incidentally, in 1804 Malthus became Britain's first professor of Political Economy.

David Ricardo (1772–1823), a wealthy stockbroker and Member of Parliament, disagreed with Malthus about the lack of effective demand. He argued that unemployment was the result of wages being too high: if people would accept lower wages they would find work. His view prevailed and was supported by Jean-Baptiste Say (1776–1832), a French industrialist. He put forward the view that general overproduction and prolonged unemployment were impossible. The often-quoted Say's Law is 'supply creates its own demand' or, put another way, the production of goods generates sufficient income to ensure these goods are sold—you may think here of the circular-flow diagram in Chapter 13.

This optimism about the way the free market would solve the problem of unemployment was the conventional wisdom in economics until the 1930s, despite the criticisms of Karl Marx and others.

'The dismal science'

Although the word 'optimism' is used in the previous paragraph, economics was often called 'the dismal science'. The classical economists foresaw a gloomy outcome in the long term. They tended to see a limit to the growth of output, because of diminishing marginal returns. Malthus, for one, foretold starvation and pestilence.

Ricardo was more optimistic about the short term but thought that in the long term profits would fall and wages would be at subsistence level. He did, however, acknowledge that improvements in technology might delay this state.

Karl Marx (1818–83) foretold revolution. He thought that the booms and slumps of the business cycle were the inevitable result of the capitalist system and that, repeated, they would lead to a growing mass of unemployed labour which would become increasingly politically aware. The contradictions of capitalism would eventually lead to a workers' revolution and to the common ownership of the means of production.

The Keynesian revolution

The First World War was followed in Britain by high levels of unemployment which persisted for nearly twenty years. This was unprecedented. The generally accepted opinion at the time, known as the 'Treasury view', was based on the argument of the classical economists that unemployment was due to wages being too high. However, although wages fell, unemployment continued to rise.

John Maynard Keynes (1883–1946) argued, like Malthus, that this unemployment was primarily due to a failure of demand—people were unwilling or unable to buy the goods produced—and that it was possible for an economy to slide into a slump and to stay there. This was the opposite of the classical economists' opinion.

Keynes, however, saw a slump as something the government could cure by a programme of spending: the government could allow its budget to go into deficit while undertaking such spending because increased economic activity would bring higher tax revenues in the future. He argued that the government must look after the short run and the long run would look after itself: 'In the long run we are all dead.'

Keynes's seminal work, *The General Theory of Employment, Interest and Money*, was published in 1936. Although he had been writing and speaking on this theme for some time, and indeed as early as 1931 a cartoon in the humorous weekly *Punch* makes a reference to Keynes's views, publication of the *General Theory* had a major impact on people's thinking. During the Second World War unemployment was hardly a problem but after the war Keynes's ideas gained widespread acceptance and the whole focus of economics changed. Before the 1930s the dominant view was that economic problems represented malfunctions on the supply side of the economy. Keynes stood that view on its head and until the 1970s the main interest was in managing the demand side of the economy to minimize the swings of the business cycle, and thus to maintain low rates of unemployment.

Monetarism

By the 1970s both unemployment and inflation were increasing and the demand-management approach seemed to have no answer, in fact it appeared to be a cause of the persistent inflation. The focus of economics and policy changed again, this time to the role of money and to the supply side of the economy. **Monetarism** is principally associated with Milton Friedman (born in 1912) and other economists of the Chicago school, so called because many worked at the University of Chicago. The monetarist view that 'inflation is always and everywhere a monetary phenomenon' looked back to the quantity theory of money (see Chapter 22) put forward by the classical economists of the previous two centuries.

Controversies continue in macroeconomics, with the attendant debates about the proper role of government, and this is partly what makes the study of macroeconomics so rewarding. Chapters 17, 19–21, and 22 look at some of the theoretical underpinnings of the subject, starting with the aggregate demand and aggregate supply model, then the Keynesian model, and finally the role of money. The implications for government policy are also examined.

Summary

1. Periodic fluctuations in economic activity have been observed for many decades.

2. Both the unemployment and the inflation associated with the business cycle are causes for concern, which has led to attempts to understand, predict, and control the business cycle.

3. Economic theory has had a powerful influence on the behaviour of governments, but ideas can take a long time to change even when policies are unsuccessful.

4. Classical economists saw the economy as a self-adjusting entity. Unemployment was the result of wages being too high.

5. Prolonged unemployment in the 1920s and 1930s provoked Keynes's analysis of the role of demand. He argued that governments should spend their way out of the slump.

6. The failure of demand management by the 1970s led to another shift of emphasis in macroeconomic thinking and policy. Monetarism reasserted the importance of the money side of the economy.

Key terms

boom

business cycle

classical economics

demand management

depression

lagging indicator

monetarism

recession

slump

stabilization policy

trade cycle

trend

Review questions

1. What happens to (i) the deviation from the trend of real output and (ii) the unemployment rate during each of the four phases of the business cycle?

2. Why might nineteenth-century business cycles have had a more severe effect on the living standards of the unemployed than business cycles in the second half of the twentieth century?

3. What major change in government policy did Keynes advocate in the 1930s and why?

Further reading

- Mabry and Ulbrich, chapter 12
- Lipsey and Chrystal, chapter 27
- Sloman, chapters 13 and 15

CHAPTER 17

The aggregate demand and aggregate supply model

The **aggregate demand and aggregate supply model** is the second model of the economy as a whole with which we deal in this book. It brings together aggregate demand and aggregate supply and is used to show how real output, the price level, and employment are effected by a wide range of influences such as taxes, the money supply, and changes in technology. Because output and income are of equivalent value, as discussed in Chapters 13 and 14, any reference to the level of real output implies a reference to the equivalent level of real income.

The model uses the ideas of demand and supply introduced in the microeconomics part of the book but extends them. In a period of time, usually a year, **aggregate demand** is the total demand for all goods and services in the economy and **aggregate supply** is the total of goods and services supplied in the economy. In macroeconomics we consider the real output of the economy and link that output to the general level of prices in the economy.

Aggregate demand

When we looked at the circular-flow model in Chapter 13 we identified the various forms of spending in the economy and these were referred to again in Chapter 14 when the expenditure method of computing GDP was discussed. In any time period, spending by consumers (C), firms (I), government (G), and net exports ($X - M$) together give total spending, or aggregate demand (AD), at any one price level:

$$AD = C + I + G + (X - M).$$

The notion of a particular **price level** in the economy at any one time may seem odd but it is best thought of as the level of prices as indicated by the **GDP deflator** (see Chapter 15). Over time, as some prices rise and others fall, changes in the GDP deflator will give the overall picture. As the price level changes, spending decisions change so that the aggregate demand for goods and services will change with the price level.

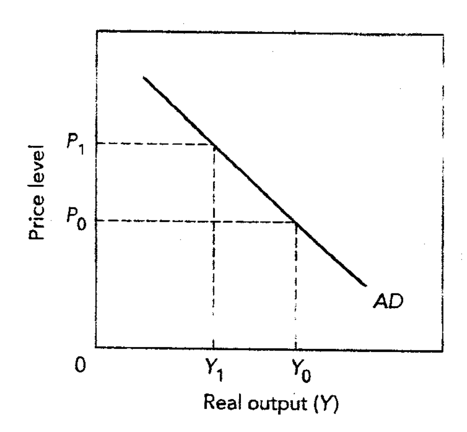


Figure 17.1. The aggregate demand curve

The aggregate demand curve

The **aggregate demand curve** (AD) shown in Figure 17.1 shows the relationship between the quantity of **real output** demanded and the price level, with the price level on the vertical axis and real output on the horizontal axis. This relationship depends on the spending decisions of consumers, firms, government, and foreign buyers. It is important to remember that many factors other than price may affect spending decisions but our diagram shows only the influence of the price level—all other factors remain unchanged.

Any change in the price level leads to a **movement along the aggregate demand curve** in Figure 17.1, at the original price level P_0 the quantity of real output demanded is Y_0. When the price level rises to P_1, the quantity of real output demanded falls to Y_1. Any other changes which affect the quantity of real output demanded will cause the aggregate demand curve to shift; we will come back to this later in the chapter.

(Students new to economics may wonder why diagrams show straight lines when the text uses the term 'curve'. In the absence of any specific information about the relationship between price levels and quantities of real output demanded, for example, we draw a straight line for convenience. This indicates the general nature of the relationship but does not imply that aggregate demand is necessarily a straight line relationship between the price level and the quantity of real output demanded.)

Why does the aggregate demand curve slope downwards from left to right?

On first sight the aggregate demand curve looks very similar to any individual demand curve we met with in microeconomics but the underlying reasons for its shape and behaviour are rather different. There are three sorts of reason for the downward slope of the aggregate demand curve. The first has to do with financial assets, the second with foreign trade and the third with interest rates.

The general price level in the economy affects the value of household assets. As the price level rises financial assets (for example savings, cash, and bonds) fall in real value so owners of these assets feel worse off and spend less. Debtors feel better off though and spend more. But since in the aggregate households' financial assets are higher than their debts, spending falls as the price level rises. Conversely, if the price level falls spending rises; because people generally feel better off.

Consumer spending is the largest component of total spending and is the form of spending most sensitive to changes in the price level. This means that total spending responds to price level changes. This response is shown by movements along the aggregate demand curve.

Exports and imports form another part of total spending but foreign trade is influenced by relative price changes between countries. If prices in one country rise faster than prices in another then imports from the second country become cheaper and thus more attractive and are substituted for domestically produced goods. Since the aggregate demand curve shows demand for real output as the price level changes, an increase in imports due to a relative rise in the price level will result in a movement up the aggregate demand curve.

If exports become more expensive for foreign buyers because of a relative rise in the price level then the quantity of goods exported will fall. Again this reduction in the demand for real output due to a relative rise in the price level is shown as a movement up the aggregate demand curve.

Interest rates need to reflect changes in the general level of prices in the economy: when the inflation rate is high the interest rate needs to be even higher, otherwise no commercially-minded individual or institution would lend money to borrowers. Chapter 21 looks at interest rates in more detail.

If firms and consumers see interest rates going up they get worried. They think the cost of borrowing is going up, even though in real terms it may not be, and therefore borrow less. Consumer spending on goods like cars and washing machines falls and firms invest less as the interest rate rises. So as prices and interest rates rise, two components of total spending, consumption (C) and investment (I), are reduced. This is shown by a movement up the aggregate demand curve as the price level rises.

The aggregate demand curve slopes downwards from left to right for the three reasons just described: the effect of changes in the price level on financial assets, foreign trade, and interest rates. So changes in the price level in the economy will lead to movements along the aggregate demand curve, if all other influences on aggregate demand are unchanged. Next we look at the effect of these other influences.

What causes the aggregate demand curve to shift?

Any change which influences aggregate demand other than a change in the price level will cause a **shift of the aggregate demand curve**. Figure 17.2 shows the original aggregate demand curve, AD_0, which shifts to the left at AD_1. At the same price level, P_0, the quantity of real output demanded is now Y_1, rather than Y_0. Similarly, a rightward shift of aggregate demand to AD_2 will lead to a quantity Y_2 of real output being demanded at the price level P_0. There are many possible causes of a shift in aggregate demand and rather than consider each singly we put them into four groups under these headings: fiscal policy, monetary policy, international factors, and expectations.

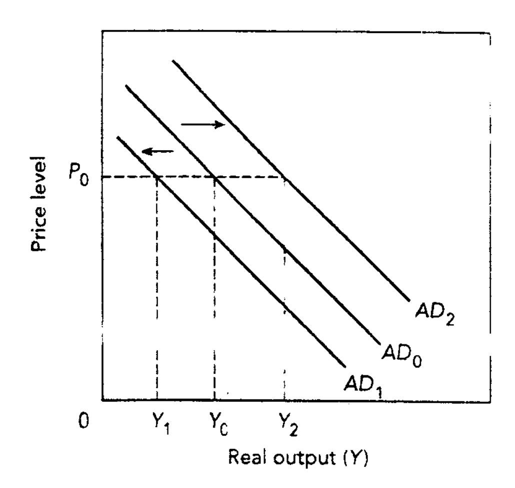


Figure 17.2. The aggregate demand curve shifts when influences other than the price level change

Fiscal policy. The government's actions on its own spending and on taxes are all encompassed by the term **fiscal policy**. Government spending on goods and services feeds straight into aggregate demand. If defence spending falls then aggregate demand falls, which translates into a leftward shift of the aggregate demand curve. Alternatively, as government spending on health services increases—perhaps because of the use of ever more elaborate pieces of medical technology—aggregate demand rises and the aggregate demand curve shifts to the right.

Household spending may be affected by fiscal policy. Lower taxes or higher benefits mean that people have more to spend on goods and services and aggregate demand rises—the aggregate demand curve shifts to the right.

Monetary policy. Monetary policy refers to Bank of England and government decisions on the money supply and the interest rate. A greater amount of money in the economy means that spending can be higher and aggregate demand will shift to the right. Interest rate changes affect business and consumer borrowing and spending. If interest rates fall the cost of borrowing falls and borrowing therefore increases, allowing consumer spending and firms' investment to increase, so that aggregate demand shifts to the right.

International factors. Some economies are more involved in international trade than others, which means that international factors will impinge more on aggregate demand in some economies than in others. They are important to Britain. For example, growing incomes in South-East Asia lead to more exports of luxury clothes and whisky from Britain, so that aggregate demand increases and the aggregate demand curve shifts to the right

The foreign exchange rate affects the prices that overseas customers have to pay for British goods and the prices we pay for imported goods. The ups and downs of the exchange rate in recent years have had an impact on aggregate demand causing it to shift both to the left and the right

Expectations. Under the heading of expectations come the ideas people have about what is likely to happen in the future to prices, incomes and profits: these ideas may well affect people's behaviour in the present. For example, if you expect prices to rise ever faster you may rush out now to buy a new bicycle on credit if necessary, rather than waiting to buy at an otherwise more convenient time. As other people too are moved by the same impulse the aggregate demand curve shifts to the right. On the other hand if job insecurity increases, people worry about their income in the future and start saving for a rainy day: they postpone major purchases and the aggregate demand curve shifts to the left.

Business confidence is related to an opinion of future profits. The more confident the expectations of future profits the more likely firms are to invest, so increasing the investment element of aggregate demand and causing the aggregate demand curve to shift to the right.

Finally, these effects on aggregate demand are not felt instantly. There are time-lags, and sometimes these are unpredictable; the effects of changes in interest rates, for example, take eighteen months to two years to work through.

To summarize, aggregate demand is total spending in the economy and is drawn as a downward-sloping curve. Any change in the average level of prices in the economy will cause a movement along the aggregate demand curve, while changes in any other factors affecting spending will cause a shift to the right or left of the aggregate demand curve.

Aggregate supply

Aggregate supply is the total of goods and services produced in the economy in a time period at any one level of prices. The **aggregate supply curve** is drawn as a line showing the relationship between various price levels and the associated quantities of goods and services, or real output, produced.

When thinking about aggregate supply we need first of all to distinguish between the short and long run in macroeconomics, where the definitions are different from those for the short and long run used in microeconomics. The **macroeconomic short run** is the time period during which the prices of goods and services change in response to changes in supply and demand but the prices of the factors of production do not: wage rates and salaries are often fixed annually and so change less frequently than prices. Some prices change every day, for example fresh fish prices on the quayside, and others may change dramatically, such as prices for crude oil or coffee beans.

The **macroeconomic long run** is the period long enough for all prices—for goods, services, and the factors of production—to have adjusted fully. In the long run there is full employment because the labour market has adjusted and unemployment is at its natural rate (see Chapter 15). Another way of looking at the distinction between the short and the long run is to say that in the short run some input prices are fixed and in the long run they change.

The aggregate supply curve

Because of these two time-frames, and various views as to their length and importance, there are a variety of aggregate supply curves. We start with the upward sloping aggregate supply curve shown in Figure 17.3 which is a **short-run aggregate supply curve**. Diagrams illustrating aggregate supply use the same axes as aggregate demand diagrams: the vertical axis shows

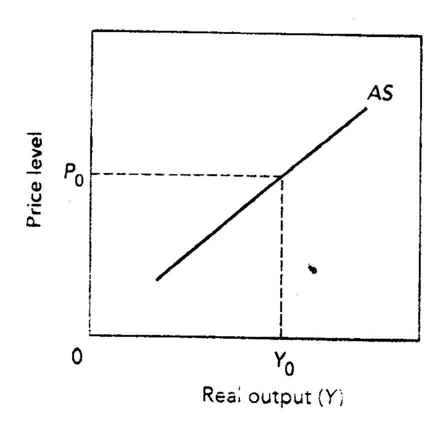


Figure 17.3. The upward-sloping aggregate supply curve is a short-run aggregate supply curve

the price level and the horizontal axis shows the level of real output. At the price level P_0 the quantity of real output supplied is Y_0.

This upward-sloping aggregate supply curve shows that a higher level of prices is associated with a greater quantity of output of goods and services. Does a rising price level cause an increase in real output or does an increase in real output cause rising prices? As Nigel Lawson, a previous Chancellor of the Exchequer, remarked, 'It is always difficult to establish causality in political economy.'[1] Less elegantly, what we have here is a chicken-and-egg situation—which comes first?

Perhaps rising prices encourage suppliers to sell more and enjoy higher profits. Alternatively, perhaps suppliers can only increase output by paying overtime or by paying more for other inputs as they become more scarce. Both are plausible explanations and both are illustrated by the aggregate supply curve rising from left to right.

In the aggregate, or macro, economy more goods and services can only be produced in the short run by using more resources and it is this fact which explains the variety of slopes of the aggregate supply curve which are shown in Figure 17.4. Where the aggregate supply curve is horizontal it is in the 'depression range'. In a depression resources are underemployed—there are spare resources—so increased output can be achieved without any price increases. The last time this happened in Britain was during the 1930s. Normally the economy is on the upward-sloping part of the aggregate supply curve.

However, in the short run every economy may face a physical limit to real output; beyond this point any effort to increase output just leads to higher prices. This is the vertical part of the short-run aggregate supply curve.

The **long-run aggregate supply curve** is also vertical. Remember that in the macroeconomic long run wages and prices have all adjusted (the real wage remains constant) and, in the absence of factors which shift the aggregate supply curve, there is only one level of output which the economy can produce at full employment, whatever the price level. The long-run aggregate supply curve is shown in Figure 17.5

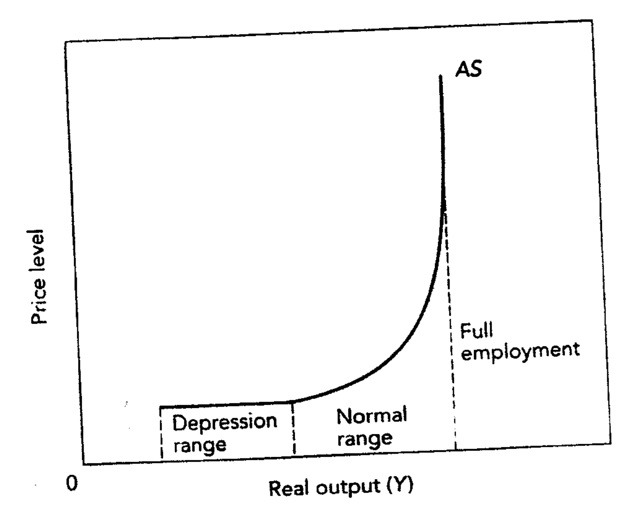


Figure 17.4. The short-run aggregate supply curve may be horizontal, upward-sloping or vertical

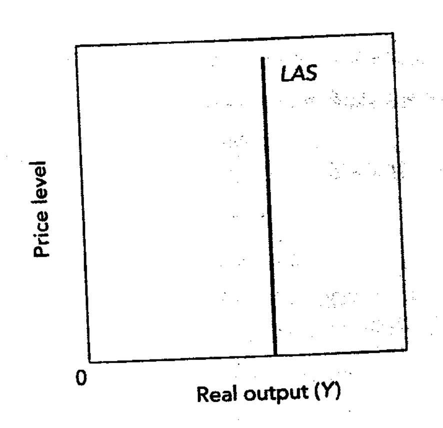


Figure 17.5. The long-run aggregate supply curve

Keynes and the classical economists

So-called Keynesian analysis of the economy tends to assume that the aggregate supply curve is horizontal, or nearly so, so that real output may rise without a rise in prices. The classical economists, on the other hand, and the monetarists more recently, have seen the aggregate supply curve as vertical, so that attempts to move along the aggregate supply curve merely lead to rising prices. The difference of opinion lies primarily in the question of the speed of adjustment of prices and wages—how short is the short run? These different views of the aggregate supply curve lead to opposing views on appropriate government policy, which we discuss in later chapters.

What causes the aggregate supply curve to shift?

As with the aggregate demand curve we look at the aggregate supply curve in two stages. First we look at the link between quantity of real output and the price level, holding all other influences constant—changes in the price level are associated with movements along the aggregate supply curve—and next we consider the effect of other influences on aggregate supply. These cause the aggregate supply curve to shift.

In Figure 17.6 the original aggregate supply curve is AS_0 and the price level P_0 is associated with a level of real output Y_0. Should the aggregate supply curve shift to the left, to AS_1, then the level of real output would be Y_1 at the price level P_0; should the aggregate supply curve shift to the right, to AS_2, the level of real output would be Y_2 at the price level P_0. Factors which shift the aggregate supply curve fall into three main groups: they may be associated with the labour force, with the economy's capital stock, or with technology.

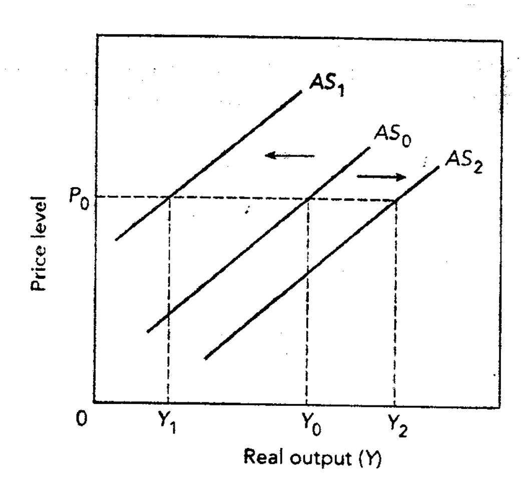


Figure 17.6. The aggregate supply curve shifts when influences other than the price level change

A larger labour force, or a more highly skilled labour force, or a better-educated labour force, will all shift the aggregate supply curve to the right. This leads to growth in real output without rising prices, other things being equal. Additions to the capital stock such as more bridges, more word processors, bigger ships, or more canals as in eighteenth-century Britain, will increase the productive capacity of the economy and therefore shift the aggregate supply curve to the right. Improvements in technology, such as bridges rather than ferries or word processors rather than manual typewriters, also lead to an increase in aggregate supply and a rightwards shift in the aggregate supply curve. Of course, the aggregate supply curve may also shift to the left following an 'adverse supply shock'. Such a shock might be caused by a natural disaster—flood, hurricane, earthquake—or a sudden upward movement in input prices such as the increase in oil prices during the 1970s. Other disturbances include the aftermath of war and the collapse of a country's currency during hyperinflation.

Macroeconomic equilibrium

Up to this point aggregate demand and aggregate supply have been discussed in isolation but if the two curves are put together we can get a picture of the impact on both prices and real output of, for example, changes in technology or changes in defence spending. As shown by Figure 17.7 **macroeconomic equilibrium** occurs when the quantity of real output demanded equals the quantity of real output supplied.

There is only one price level where the quantity demanded equals the quantity supplied: at the equilibrium price level P_e there is a corresponding equilibrium level of real output Y_e.

The price level and the level of real output are two of our key macroeconomic variables; the third is employment. This diagram does not show employment, but real output and employment are closely linked, particularly in the short run. If one rises so does the other, in general.

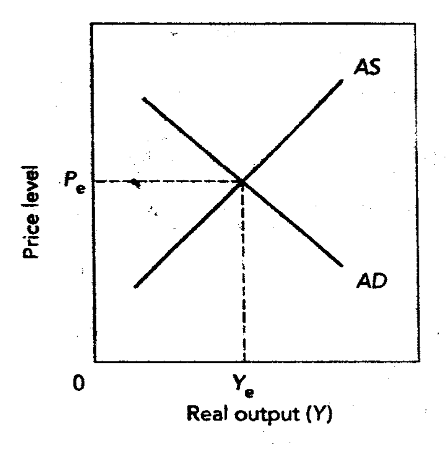


Figure 17.7. Macroeconomic equilibrium

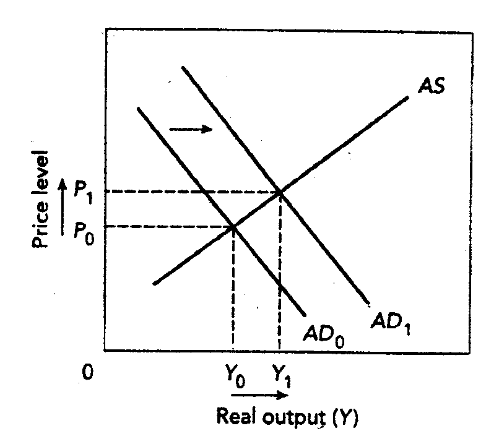


Figure 17.8. The aggregate demand curve shifts to the right: both real output and the price level rise

although there may be time-lags. The aggregate demand and aggregate supply model allows us to study the interrelationships of our three key variables: real output, employment, and the price level.

A new equilibrium

Suppose consumer and business confidence increases and the aggregate demand curve therefore shifts to the right, from AD_0 to AD_1 as in Figure 17.8. Equilibrium real output moves from Y_0 to Y_1 and the equilibrium price level changes from P_0 to P_1; in other words, real output and employment increase, but prices rise too.

Similarly, for example, if exports fall and imports rise due to a change in the exchange rate, then the aggregate demand curve will shift to the left from AD_0 to AD_1 in Figure 17.9, equilibrium real output will move from Y_0 to Y_1, and the equilibrium price level will move from P_0 to P_1. Real output and the price level will fall, while unemployment will increase.

In a third example improvements in technology shift the aggregate supply curve to the right, shown in Figure 17.10 by AS_0 shifting to AS_1, while the aggregate demand curve remains at AD. The equilibrium level of real output increases from Y_0 to Y_1 and the equilibrium level of prices falls from P_0 to P_1. The economy grows and the level of prices falls.

In the fourth example, shown in Figure 17.11, the aggregate supply curve shifts to the left, from AS_0 to AS_1; the aggregate demand curve is unchanged. Equilibrium real output falls from Y_0 to Y_1 and the equilibrium price level rises from P_0 to P_1. In the 1970s the adverse supply shock of rising oil prices led to falling output and employment and rising inflation, as illustrated in Figure 17.11. This alarming combination was dubbed 'stagflation' at the time—a combination of stagnation and inflation.

To paint a happier picture, if we take both Figure 17.8 and Figure 17.10 and put them together in Figure 17.12, it can be seen that rightward shifts of both the aggregate demand and aggregate supply curves may, in theory, lead to growth without inflation. The equilibrium

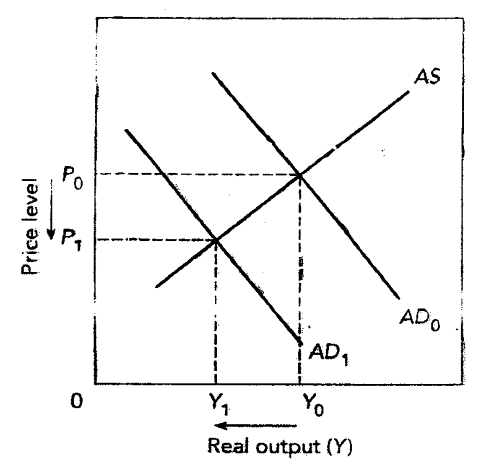


Figure 17.9. The aggregate demand curve shifts to the left: both real output and the price level fall

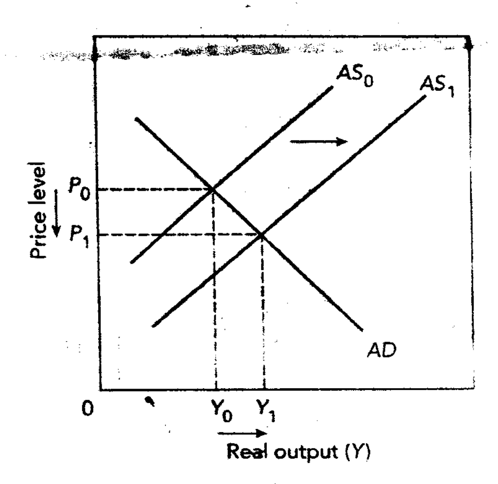


Figure 17.10. The aggregate supply curve shifts to the right: prices fall and real output rises

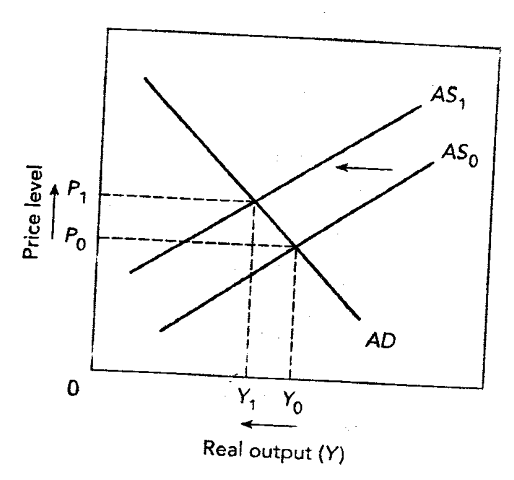


Figure 17.11. The aggregate supply curve shifts to the left: prices rise and real output falls

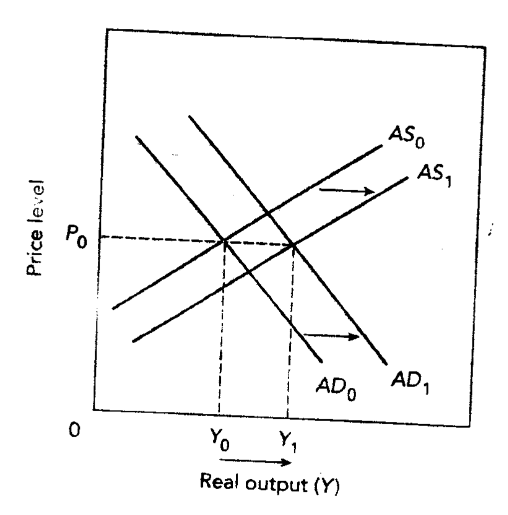


Figure 17.12. Both the aggregate demand curve and the aggregate supply curve shift to the right

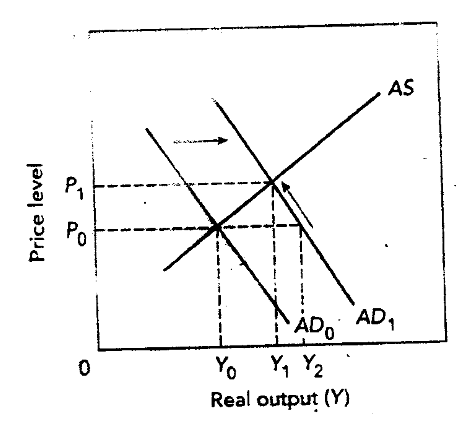


Figure 17.13. The aggregate demand curve shifts to the right: the process of adjustment

price level remains the same at P_0 and the equilibrium level of real output rises from Y_0 to Y_1: this is the goal of many governments. To foster growth without inflation a government needs to find ways of encouraging, or allowing, the aggregate supply curve to shift to the right. Such policies are discussed in greater detail in the next chapter.

Changes to a new equilibrium do not happen instantly; adjustments to the economy may take some time to work through. If the aggregate demand curve shifts to the right, as in Figure 17.13, AD_0 shifts to AD_1. At the original price level P_0 a shortage of goods develops, shown by the distance between Y_2 and Y_0. Firms run down their stocks of unsold goods and start to produce more. In doing so they find that they must pay higher prices for some inputs and may pay more for labour. To remain profitable they will put up prices where possible. As prices rise some customers drop out—in terms of the diagram we move back along AD_1 to reach the higher price level P_1, where aggregate demand and aggregate supply are equal. The economy has reached a new equilibrium.

Of course in the real world there may be any number of influences on aggregate demand and aggregate supply changing at the same time, or in quick succession, so that in the real world equilibrium is unlikely to be attained. What a model such as this does is allow us to study the impact of events and policies on real output, employment, and prices, and so better predict the likely outcome.

This model does, however, lack detail. Chapter 18 looks more closely at aggregate supply and Chapter 19 examines aggregate demand.

The impact of government policies

Both the aggregate demand and the aggregate supply curve may be relatively steep or more shallow but the steepness of either may affect the effectiveness of government policies intended to influence real output, employment, and prices.

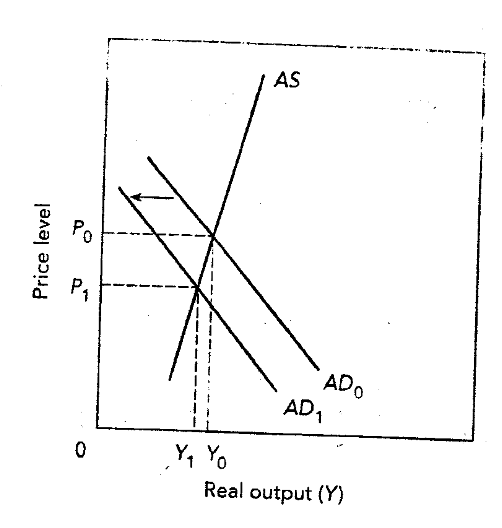


Figure 17.14. A steep aggregate supply curve: price changes are relatively large and real output changes relatively small

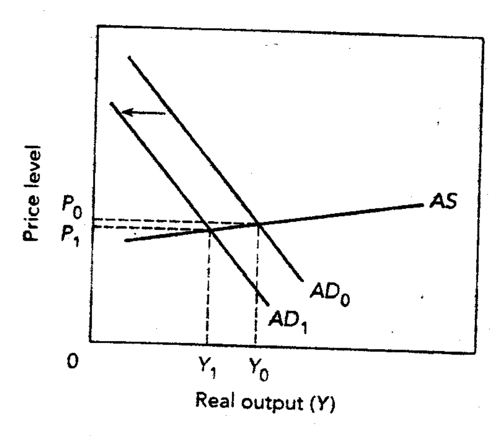


Figure 17.15. A shallow aggregate supply curve: price changes are relatively small and real output changes relatively large

For example, if the aggregate supply curve is relatively steep, as in Figure 17.14, a deflationary government policy which moved the aggregate demand curve to the left would have a much greater impact on prices than on real output and employment. If, however, the aggregate supply curve were relatively shallow, as in Figure 17.15, then a similar policy would have a greater impact on real output and employment than on prices

This model appears to offer governments some attractive recipes for 'steering' the economy. Equilibrium levels of prices and of output are achieved through the interaction of both aggregate demand and aggregate supply but for many years government policies focused on one or the other, perhaps because of disillusion with the outcomes of previous policies or because of assumptions about the responsiveness of aggregate demand or aggregate supply to changes in the price level. It is important to remember that aggregate demand and aggregate supply *together* determine the average price level and the levels of real output and employment.

The business cycle and macroeconomic equilibrium

Macroeconomic equilibrium does not necessarily occur at full employment; it may be below, at, or above full employment. Figure 17.16 shows real output fluctuating around its long-run trend over the business cycle, as described in Chapter 16. At point *A* actual real output is below long-run trend real output and there is a recessionary, or deflationary, gap with an equilibrium (Y_a) below full employment (Y_{fe}), shown in part (*a*) of Figure 17.17. At point *B* equilibrium coincides with long-run trend real output and the economy is operating at full employment, as shown in part (*b*) of Figure 17.17. Finally, at point *C* equilibrium real output is above the long-run trend real output and there is an inflationary gap, shown in part (*c*) of Figure 17.17, where equilibrium (Y_c) is above full employment (Y_{fe}). The economy moves from one equilibrium to another as the aggregate demand and short-run aggregate supply curves shift. Fluctuations in real output, employment, and the price level are the result.

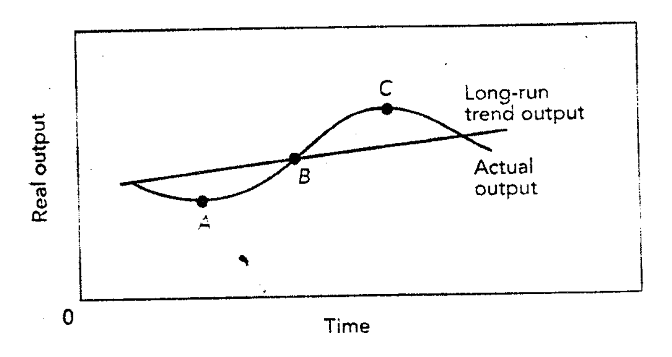


Figure 17.16. Fluctuations in the level of real output over the business cycle

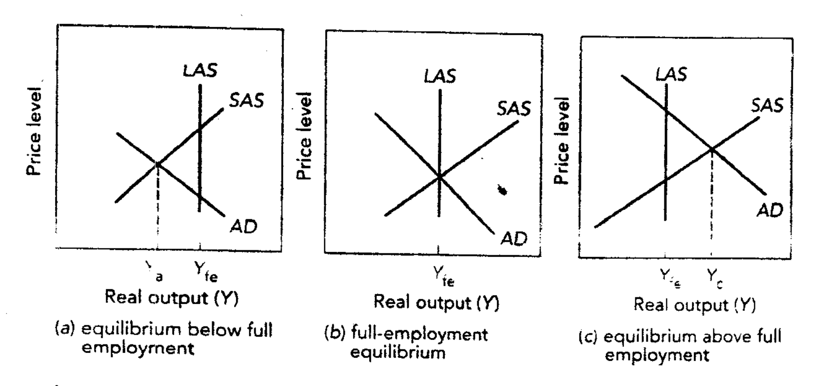


Figure 17.17. Macroeconomic equilibrium and full employment over the business cycle

Summary

1. Changes in the price level will cause movements along the aggregate demand curve. Changes in any of the other factors affecting aggregate demand will cause the aggregate demand curve to shift.

2. Changes in the price level will cause movements along the aggregate supply curve. Changes in any of the other factors affecting aggregate supply will cause the aggregate supply curve to shift

3. The slope of the short-run aggregate supply curve depends upon the amount of spare capacity in the economy: the horizontal aggregate supply curve is only characteristic of a deep depression; the vertical short-run aggregate supply curve occurs when the economy is at full employment; usually, the economy is operating on the upward-sloping section of the aggregate supply curve.

4. The long-run aggregate supply curve is vertical.

5. The aggregate demand and aggregate supply model shows how real output and the average level of prices interact.

6. The model can be used to look at growth, employment inflation, and the business cycle.

7. We can also use the model to study the effects of government policies, sudden shocks like the oil price rise of the 1970s, or long-term changes such as population growth

Key terms

aggregate demand
aggregate demand and aggregate supply model
aggregate demand curve
aggregate supply
aggregate supply curve
fiscal policy
GDP deflator
horizontal aggregate supply curve
long-run aggregate supply curve
macroeconomic equilibrium
macroeconomic long run
macroeconomic short run
monetary policy
movements along an aggregate demand or aggregate supply curve
price level
real output
shifts of an aggregate demand or aggregate supply curve
short-run aggregate supply curve
vertical aggregate supply curve

Review questions

1. For each of the following results draw a diagram to show whether it is caused by a shift in aggregate demand or aggregate supply, or both.

(i) Real output falls, price level falls.
(ii) Real output falls, price level rises.
(iii) Real output rises, price level falls.
(iv) Real output rises, price level rises.
(v) Real output rises, price level hardly changes.
(vi) Real output falls, price level hardly changes.
(vii) Real output hardly changes, price level falls.
(viii) Real output hardly changes, price level rises.

2. Draw an aggregate demand and aggregate supply diagram to show the effect of an increase in productivity. What might be the causes of such an increase in productivity?

3. Draw diagrams to show:

(i) the long-run aggregate supply curve;
(ii) a short-run aggregate supply curve during a depression.

Explain the slope of each curve.

4. In each of the following state whether the aggregate demand curve shifts to the right or to the left.

(i) Interest rates fall.
(ii) Taxes rise.

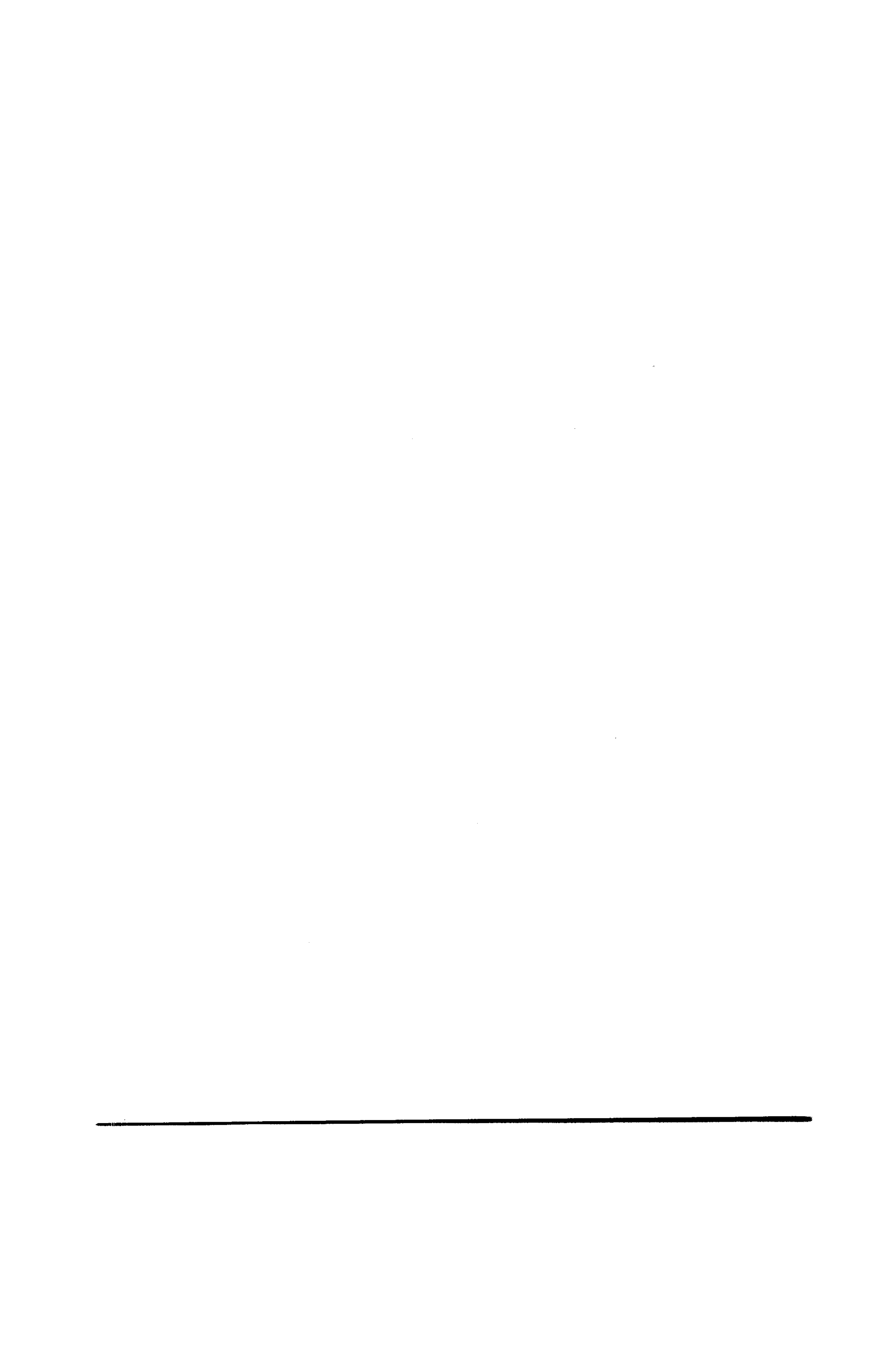
(iii) Exports rise.
(iv) The money supply increases.
(v) Defence spending doubles.
(vi) The stock market crashes.

Note

1. Nigel Lawson, *The View from No. 11* (London: Bantam Press, 1992), 354.

Further reading

- Mabry and Ulbrich, chapter 12
- Lipsey and Chrystal, chapters 23 and 24
- Sloman, chapter 13



THE COLLECTED WRITINGS OF

JOHN MAYNARD KEYNES

VOLUME VII

THE GENERAL THEORY OF EMPLOYMENT INTEREST AND MONEY

MACMILLAN
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that the aggregate demand price is equal to the aggregate supply price for all levels of output and employment.

These three assumptions, however, all amount to the same thing in the sense that they all stand and fall together, any one of them logically involving the other two.

Chapter 3

THE PRINCIPLE OF EFFECTIVE DEMAND

I

We need, to start with, a few terms which will be defined precisely later. In a given state of technique, resources and costs, the employment of a given volume of labour by an entrepreneur involves him in two kinds of expense: first of all, the amounts which he pays out to the factors of production (exclusive of other entrepreneurs) for their current services, which we shall call the *factor cost* of the employment in question; and secondly, the amounts which he pays out to other entrepreneurs for what he has to purchase from them together with the sacrifice which he incurs by employing the equipment instead of leaving it idle, which we shall call the *user cost* of the employment in question.[1] The excess of the value of the resulting output over the sum of its factor cost and its user cost is the profit or, as we shall call it, the *income* of the entrepreneur. The factor cost is, of course, the same thing, looked at from the point of view of the entrepreneur, as what the factors of production regard as their income. Thus the factor cost and the entrepreneur's profit make up, between them, what we shall define as the *total income* resulting from the employment given by the entrepreneur. The entrepreneur's profit thus defined is, as it should be, the quantity which he endeavours to maximise when he is deciding what amount of employ-

[1] A precise definition of *user cost* will be given in chapter 6.

ment to offer. It is sometimes convenient, when we are looking at it from the entrepreneur's standpoint, to call the aggregate income (i.e. factor cost *plus* profit) resulting from a given amount of employment the *proceeds* of that employment. On the other hand, the aggregate supply price[1] of the output of a given amount of employment is the expectation of proceeds which will just make it worth the while of the entrepreneurs to give that employment.[2]

It follows that in a given situation of technique, resources and factor cost per unit of employment, the amount of employment, both in each individual firm and industry and in the aggregate, depends on the amount of the proceeds which the entrepreneurs expect to receive from the corresponding output.[3] For entrepreneurs will endeavour to fix the amount of employ-

[1] Not to be confused (*vide infra*) with the supply price of a unit of output in the ordinary sense of this term.

[2] The reader will observe that I am deducting the user cost both from the *proceeds* and from the *aggregate supply price* of a given volume of output, so that both these terms are to be interpreted *net* of user cost; whereas the aggregate sums paid by the purchasers are, of course, *gross* of user cost. The reasons why this is convenient will be given in chapter 6. The essential point is that the aggregate proceeds and aggregate supply price net of user cost can be defined uniquely and unambiguously; whereas, since user cost is obviously dependent both on the degree of integration of industry and on the extent to which entrepreneurs buy from one another, there can be no definition of the aggregate sums paid by purchasers, *inclusive* of user cost, which is independent of these factors. There is a similar difficulty even in defining supply price in the ordinary sense for an individual producer; and in the case of the aggregate supply price of *output as a whole* serious difficulties of duplication are involved, which have not always been faced. If the term is to be interpreted gross of user cost, they can only be overcome by making special assumptions relating to the integration of entrepreneurs in groups according as they produce consumption-goods or capital-goods, which are obscure and complicated in themselves and do not correspond to the facts. If, however, aggregate supply price is defined as above *net* of user cost, these difficulties do not arise. The reader is advised, however, to await the fuller discussion in chapter 6 and its Appendix.

[3] An entrepreneur, who has to reach a practical decision as to his scale of production, does not, of course, entertain a single undoubting expectation of what the sale-proceeds of a given output will be, but several hypothetical expectations held with varying degrees of probability and definiteness. By his expectation of proceeds I mean, therefore, that expectation of proceeds which, if it were held with certainty, would lead to the same behaviour as does the bundle of vague and more various possibilities which actually makes up his state of expectation when he reaches his decision.

ment at the level which they expect to maximise the excess of the proceeds over the factor cost.

Let Z be the aggregate supply price of the output from employing N men, the relationship between Z and N being written $Z = \phi(N)$, which can be called the *aggregate supply function.*[1] Similarly, let D be the proceeds which entrepreneurs expect to receive from the employment of N men, the relationship between D and N being written $D = f(N)$, which can be called the *aggregate demand function.*

Now if for a given value of N the expected proceeds are greater than the aggregate supply price, i.e. if D is greater than Z, there will be an incentive to entrepreneurs to increase employment beyond N and, if necessary, to raise costs by competing with one another for the factors of production, up to the value of N for which Z has become equal to D. Thus the volume of employment is given by the point of intersection between the aggregate demand function and the aggregate supply function; for it is at this point that the entrepreneurs' expectation of profits will be maximised. The value of D at the point of the aggregate demand function, where it is intersected by the aggregate supply function, will be called *the effective demand.* Since this is the substance of the General Theory of Employment, which it will be our object to expound, the succeeding chapters will be largely occupied with examining the various factors upon which these two functions depend.

The classical doctrine, on the other hand, which used to be expressed categorically in the statement that 'Supply creates its own Demand' and continues to underlie all orthodox economic theory, involves a special assumption as to the relationship between these two functions. For 'Supply creates its own Demand' must mean that $f(N)$ and $\phi(N)$ are equal for *all* values

[1] In chapter 20 a function closely related to the above will be called the employment function.

of N, i.e. for all levels of output and employment, and that when there is an increase in $Z(=\phi(N))$ corresponding to an increase in N, $D(=f(N))$ necessarily increases by the same amount as Z. The classical theory assumes, in other words, that the aggregate demand price (or proceeds) always accommodates itself to the aggregate supply price; so that, whatever the value of N may be, the proceeds D assume a value equal to the aggregate supply price Z which corresponds to N. That is to say, effective demand, instead of having a unique equilibrium value, is an infinite range of values all equally admissible; and the amount of employment is indeterminate except in so far as the marginal disutility of labour sets an upper limit.

If this were true, competition between entrepreneurs would always lead to an expansion of employment up to the point at which the supply of output as a whole ceases to be elastic, i.e. where a further increase in the value of the effective demand will no longer be accompanied by any increase in output. Evidently this amounts to the same thing as full employment. In the previous chapter we have given a definition of full employment in terms of the behaviour of labour. An alternative, though equivalent, criterion is that at which we have now arrived, namely a situation in which aggregate employment is inelastic in response to an increase in the effective demand for its output. Thus Say's law, that the aggregate demand price of output as a whole is equal to its aggregate supply price for all volumes of output, is equivalent to the proposition that there is no obstacle to full employment. If, however, this is not the true law relating the aggregate demand and supply functions, there is a vitally important chapter of economic theory which remains to be written and without which all discussions concerning the volume of aggregate employment are futile.

II

A brief summary of the theory of employment to be worked out in the course of the following chapters may, perhaps, help the reader at this stage, even though it may not be fully intelligible. The terms involved will be more carefully defined in due course. In this summary we shall assume that the money-wage and other factor costs are constant per unit of labour employed. But this simplification, with which we shall dispense later, is introduced solely to facilitate the exposition. The essential character of the argument is precisely the same whether or not money-wages, etc., are liable to change.

The outline of our theory can be expressed as follows. When employment increases, aggregate real income is increased. The psychology of the community is such that when aggregate real income is increased aggregate consumption is increased, but not by so much as income. Hence employers would make a loss if the whole of the increased employment were to be devoted to satisfying the increased demand for immediate consumption. Thus, to justify any given amount of employment there must be an amount of current investment sufficient to absorb the excess of total output over what the community chooses to consume when employment is at the given level. For unless there is this amount of investment, the receipts of the entrepreneurs will be less than is required to induce them to offer the given amount of employment. It follows, therefore, that, given what we shall call the community's propensity to consume, the equilibrium level of employment, i.e. the level at which there is no inducement to employers as a whole either to expand or to contract employment, will depend on the amount of current investment. The amount of current investment will depend, in turn, on what we shall call the inducement to invest; and the inducement to invest will

be found to depend on the relation between the schedule of the marginal efficiency of capital and the complex of rates of interest on loans of various maturities and risks.

Thus, given the propensity to consume and the rate of new investment, there will be only one level of employment consistent with equilibrium; since any other level will lead to inequality between the aggregate supply price of output as a whole and its aggregate demand price. This level cannot be *greater* than full employment, i.e. the real wage cannot be less than the marginal disutility of labour. But there is no reason in general for expecting it to be *equal* to full employment. The effective demand associated with full employment is a special case, only realised when the propensity to consume and the inducement to invest stand in a particular relationship to one another. This particular relationship, which corresponds to the assumptions of the classical theory, is in a sense an optimum relationship. But it can only exist when, by accident or design, current investment provides an amount of demand just equal to the excess of the aggregate supply price of the output resulting from full employment over what the community will choose to spend on consumption when it is fully employed.

This theory can be summed up in the following propositions:

(1) In a given situation of technique, resources and costs, income (both money-income and real income) depends on the volume of employment N.

(2) The relationship between the community's income and what it can be expected to spend on consumption, designated by D_1, will depend on the psychological characteristic of the community, which we shall call its *propensity to consume*. That is to say, consumption will depend on the level of aggregate income and, therefore, on the level of employment N, except when there is some change in the propensity to consume.

(3) The amount of labour N which the entrepreneurs decide to employ depends on the sum (D) of *two* quantities, namely D_1, the amount which the community is expected to spend on consumption, and D_2, the amount which it is expected to devote to new investment. D is what we have called above the *effective demand*.

(4) Since $D_1 + D_2 = D = \phi(N)$, where ϕ is the aggregate supply function, and since, as we have seen in (2) above, D_1 is a function of N, which we may write $\chi(N)$, depending on the propensity to consume, it follows that $\phi(N) - \chi(N) = D_2$.

(5) Hence the volume of employment in equilibrium depends on (i) the aggregate supply function, ϕ, (ii) the propensity to consume, χ, and (iii) the volume of investment, D_2. This is the essence of the General Theory of Employment.

(6) For every value of N there is a corresponding marginal productivity of labour in the wage-goods industries; and it is this which determines the real wage. (5) is, therefore, subject to the condition that N cannot *exceed* the value which reduces the real wage to equality with the marginal disutility of labour. This means that not all changes in D are compatible with our temporary assumption that money-wages are constant. Thus it will be essential to a full statement of our theory to dispense with this assumption.

(7) On the classical theory, according to which $D = \phi(N)$ for *all* values of N, the volume of employment is in neutral equilibrium for all values of N less than its maximum value; so that the forces of competition between entrepreneurs may be expected to push it to this maximum value. Only at this point, on the classical theory, can there be stable equilibrium.

(8) *When employment increases, D_1 will increase, but not by so much as D*; since when our income increases our consumption increases also, but not by so much The key to our practical problem is to be found in this

psychological law. For it follows from this that the greater the volume of employment the greater will be the gap between the aggregate supply price (Z) of the corresponding output and the sum (D_1) which the entrepreneurs can expect to get back out of the expenditure of consumers. Hence, if there is no change in the propensity to consume, employment cannot increase, unless at the same time D_2 is increasing so as to fill the increasing gap between Z and D_1. Thus—except on the special assumptions of the classical theory according to which there is some force in operation which, when employment increases, always causes D_2 to increase sufficiently to fill the widening gap between Z and D_1—the economic system may find itself in stable equilibrium with N at a level below full employment, namely at the level given by the intersection of the aggregate demand function with the aggregate supply function.

Thus the volume of employment is not determined by the marginal disutility of labour measured in terms of real wages, except in so far as the supply of labour available at a given real wage sets a *maximum* level to employment. The propensity to consume and the rate of new investment determine between them the volume of employment, and the volume of employment is uniquely related to a given level of real wages—not the other way round. If the propensity to consume and the rate of new investment result in a deficient effective demand, the actual level of employment will fall short of the supply of labour potentially available at the existing real wage, and the equilibrium real wage will be *greater* than the marginal disutility of the equilibrium level of employment.

This analysis supplies us with an explanation of the paradox of poverty in the midst of plenty. For the mere existence of an insufficiency of effective demand may, and often will, bring the increase of employment to a standstill *before* a level of full employ-

ment has been reached The insufficiency of effective demand will inhibit the process of production in spite of the fact that the marginal product of labour still exceeds in value the marginal disutility of employment.

Moreover the richer the community, the wider will tend to be the gap between its actual and its potential production; and therefore the more obvious and outrageous the defects of the economic system. For a poor community will be prone to consume by far the greater part of its output, so that a very modest measure of investment will be sufficient to provide full employment; whereas a wealthy community will have to discover much ampler opportunities for investment if the saving propensities of its wealthier members are to be compatible with the employment of its poorer members. If in a potentially wealthy community the inducement to invest is weak, then, in spite of its potential wealth, the working of the principle of effective demand will compel it to reduce its actual output, until, in spite of its potential wealth, it has become so poor that its surplus over its consumption is sufficiently diminished to correspond to the weakness of the inducement to invest.

But worse still. Not only is the marginal propensity to consume[1] weaker in a wealthy community, but, owing to its accumulation of capital being already larger, the opportunities for further investment are less attractive unless the rate of interest falls at a sufficiently rapid rate; which brings us to the theory of the rate of interest and to the reasons why it does not automatically fall to the appropriate level, which will occupy Book IV.

Thus the analysis of the propensity to consume, the definition of the marginal efficiency of capital and the theory of the rate of interest are the three main gaps in our existing knowledge which it will be necessary to fill. When this has been accomplished,

[1] Defined in chapter 10, below

we shall find that the theory of prices falls into its proper place as a matter which is subsidiary to our general theory. We shall discover, however, that money plays an essential part in our theory of the rate of interest; and we shall attempt to disentangle the peculiar characteristics of money which distinguish it from other things.

III

The idea that we can safely neglect the aggregate demand function is fundamental to the Ricardian economics, which underlie what we have been taught for more than a century. Malthus, indeed, had vehemently opposed Ricardo's doctrine that it was impossible for effective demand to be deficient; but vainly. For, since Malthus was unable to explain clearly (apart from an appeal to the facts of common observation) how and why effective demand could be deficient or excessive, he failed to furnish an alternative construction; and Ricardo conquered England as completely as the Holy Inquisition conquered Spain. Not only was his theory accepted by the city, by statesmen and by the academic world. But controversy ceased; the other point of view completely disappeared; it ceased to be discussed. The great puzzle of effective demand with which Malthus had wrestled vanished from economic literature. You will not find it mentioned even once in the whole works of Marshall, Edgeworth and Professor Pigou, from whose hands the classical theory has received its most mature embodiment. It could only live on furtively, below the surface, in the underworlds of Karl Marx, Silvio Gesell or Major Douglas.

The completeness of the Ricardian victory is something of a curiosity and a mystery. It must have been due to a complex of suitabilities in the doctrine to the environment into which it was projected. That it

reached conclusions quite different from what the ordinary uninstructed person would expect, added, I suppose, to its intellectual prestige That its teaching, translated into practice, was austere and often unpalatable, lent it virtue That it was adapted to carry a vast and consistent logical superstructure, gave it beauty. That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress, and the attempt to change such things as likely on the whole to do more harm than good, commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social force behind authority.

But although the doctrine itself has remained unquestioned by orthodox economists up to a late date, its signal failure for purposes of scientific prediction has greatly impaired, in the course of time, the prestige of its practitioners. For professional economists, after Malthus, were apparently unmoved by the lack of correspondence between the results of their theory and the facts of observation;—a discrepancy which the ordinary man has not failed to observe, with the result of his growing unwillingness to accord to economists that measure of respect which he gives to other groups of scientists whose theoretical results are confirmed by observation when they are applied to the facts.

The celebrated *optimism* of traditional economic theory, which has led to economists being looked upon as Candides, who, having left this world for the cultivation of their gardens, teach that all is for the best in the best of all possible worlds provided we will let well alone, is also to be traced, I think, to their having neglected to take account of the drag on prosperity which can be exercised by an insufficiency of effective demand For there would obviously be a natural tendency towards the optimum employment of resources in a society which was functioning after the

manner of the classical postulates. It may well be that the classical theory represents the way in which we should like our economy to behave. But to assume that it actually does so is to assume our difficulties away.

Chapter 18

THE GENERAL THEORY OF EMPLOYMENT RE-STATED

I

We have now reached a point where we can gather together the threads of our argument. To begin with, it may be useful to make clear which elements in the economic system we usually take as given, which are the independent variables of our system and which are the dependent variables.

We take as given the existing skill and quantity of available labour, the existing quality and quantity of available equipment, the existing technique, the degree of competition, the tastes and habits of the consumer, the disutility of different intensities of labour and of the activities of supervision and organisation, as well as the social structure including the forces, other than our variables set forth below, which determine the distribution of the national income. This does not mean that we assume these factors to be constant; but merely that, in this place and context, we are not considering or taking into account the effects and consequences of changes in them.

Our independent variables are, in the first instance, the propensity to consume, the schedule of the marginal efficiency of capital and the rate of interest, though, as we have already seen, these are capable of further analysis.

Our dependent variables are the volume of employment and the national income (or national dividend) measured in wage-units.

The factors, which we have taken as given, influence

our independent variables, but do not completely determine them. For example, the schedule of the marginal efficiency of capital depends partly on the existing quantity of equipment which is one of the given factors, but partly on the state of long-term expectation which cannot be inferred from the given factors. But there are certain other elements which the given factors determine so completely that we can treat these derivatives as being themselves given. For example, the given factors allow us to infer what level of national income measured in terms of the wage-unit will correspond to any given level of employment; so that, within the economic framework which we take as given, the national income depends on the volume of employment, i.e. on the quantity of effort currently devoted to production, in the sense that there is a unique correlation between the two.[1] Furthermore, they allow us to infer the shape of the aggregate supply functions, which embody the *physical* conditions of supply, for different types of products;—that is to say, the quantity of employment which will be devoted to production corresponding to any given level of effective demand measured in terms of wage-units. Finally, they furnish us with the supply function of labour (or effort); so that they tell us *inter alia* at what point the employment function[2] for labour as a whole will cease to be elastic.

The schedule of the marginal efficiency of capital depends, however, partly on the given factors and partly on the prospective yield of capital-assets of different kinds; whilst the rate of interest depends partly on the state of liquidity-preference (i.e. on the liquidity function) and partly on the quantity of money measured in terms of wage-units. Thus we can sometimes regard our ultimate independent variables as consisting of (1) the three fundamental psychological

[1] We are ignoring at this stage certain complications which arise when the employment functions of different products have different curvatures within the relevant range of employment. See chapter 20 below.

[2] Defined in chapter 20 below.

factors, namely, the psychological propensity to consume, the psychological attitude to liquidity and the psychological expectation of future yield from capital-assets, (2) the wage-unit as determined by the bargains reached between employers and employed, and (3) the quantity of money as determined by the action of the central bank; so that, if we take as given the factors specified above, these variables determine the national income (or dividend) and the quantity of employment. But these again would be capable of being subjected to further analysis, and are not, so to speak, our ultimate atomic independent elements.

The division of the determinants of the economic system into the two groups of given factors and independent variables is, of course, quite arbitrary from any absolute standpoint. The division must be made entirely on the basis of experience, so as to correspond on the one hand to the factors in which the changes seem to be so slow or so little relevant as to have only a small and comparatively negligible short-term influence on our *quaesitum*; and on the other hand to those factors in which the changes are found in practice to exercise a dominant influence on our *quaesitum*. Our present object is to discover what determines at any time the national income of a given economic system and (which is almost the same thing) the amount of its employment; which means in a study so complex as economics, in which we cannot hope to make completely accurate generalisations, the factors whose changes *mainly* determine our *quaesitum*. Our final task might be to select those variables which can be deliberately controlled or managed by central authority in the kind of system in which we actually live.

II

Let us now attempt to summarise the argument of the previous chapters; taking the factors in the reverse order to that in which we have introduced them.

There will be an inducement to push the rate of new investment to the point which forces the supply-price of each type of capital-asset to a figure which, taken in conjunction with its prospective yield, brings the marginal efficiency of capital in general to approximate equality with the rate of interest. That is to say, the physical conditions of supply in the capital-goods industries, the state of confidence concerning the prospective yield, the psychological attitude to liquidity and the quantity of money (preferably calculated in terms of wage-units) determine, between them, the rate of new investment.

But an increase (or decrease) in the rate of investment will have to carry with it an increase (or decrease) in the rate of consumption; because the behaviour of the public is, in general, of such a character that they are only willing to widen (or narrow) the gap between their income and their consumption if their income is being increased (or diminished). That is to say, changes in the rate of consumption are, in general, *in the same direction* (though smaller in amount) as changes in the rate of income. The relation between the increment of consumption which has to accompany a given increment of saving is given by the marginal propensity to consume. The ratio, thus determined, between an increment of investment and the corresponding increment of aggregate income, both measured in wage-units, is given by the investment multiplier.

Finally, if we assume (as a first approximation) that the employment multiplier is equal to the investment multiplier, we can, by applying the multiplier to the increment (or decrement) in the rate of investment brought about by the factors first described, infer the increment of employment.

An increment (or decrement) of employment is liable, however, to raise (or lower) the schedule of liquidity-preference; there being three ways in which it will tend to increase the demand for money, inasmuch

as the value of output will rise when employment increases even if the wage-unit and prices (in terms of the wage-unit) are unchanged, but, in addition, the wage-unit itself will tend to rise as employment improves, and the increase in output will be accompanied by a rise of prices (in terms of the wage-unit) owing to increasing cost in the short period.

Thus the position of equilibrium will be influenced by these repercussions; and there are other repercussions also. Moreover, there is not one of the above factors which is not liable to change without much warning, and sometimes substantially. Hence the extreme complexity of the actual course of events. Nevertheless, these seem to be the factors which it is useful and convenient to isolate. If we examine any actual problem along the lines of the above schematism, we shall find it more manageable; and our practical intuition (which can take account of a more detailed complex of facts than can be treated on general principles) will be offered a less intractable material upon which to work.

III

The above is a summary of the General Theory. But the actual phenomena of the economic system are also coloured by certain special characteristics of the propensity to consume, the schedule of the marginal efficiency of capital and the rate of interest, about which we can safely generalise from experience, but which are not logically necessary.

In particular, it is an outstanding characteristic of the economic system in which we live that, whilst it is subject to severe fluctuations in respect of output and employment, it is not violently unstable. Indeed it seems capable of remaining in a chronic condition of sub-normal activity for a considerable period without any marked tendency either towards recovery or towards complete collapse. Moreover, the evidence indicates

that full, or even approximately full, employment is of rare and short-lived occurrence. Fluctuations may start briskly but seem to wear themselves out before they have proceeded to great extremes, and an intermediate situation which is neither desperate nor satisfactory is our normal lot. It is upon the fact that fluctuations tend to wear themselves out before proceeding to extremes and eventually to reverse themselves, that the theory of business *cycles* having a regular phase has been founded. The same thing is true of prices, which, in response to an initiating cause of disturbance, seem to be able to find a level at which they can remain, for the time being, moderately stable.

Now, since these facts of experience do not follow of logical necessity, one must suppose that the environment and the psychological propensities of the modern world must be of such a character as to produce these results. It is, therefore, useful to consider what hypothetical psychological propensities would lead to a stable system; and, then, whether these propensities can be plausibly ascribed, on our general knowledge of contemporary human nature, to the world in which we live.

The conditions of stability which the foregoing analysis suggests to us as capable of explaining the observed results are the following:

(i) The marginal propensity to consume is such that, when the output of a given community increases (or decreases) because more (or less) employment is being applied to its capital equipment, the multiplier relating the two is greater than unity but not very large.

(ii) When there is a change in the prospective yield of capital or in the rate of interest, the schedule of the marginal efficiency of capital will be such that the change in new investment will not be in great disproportion to the change in the former; i.e. moderate changes in the prospective yield of capital or in the rate of interest will not be associated with very great changes in the rate of investment.

(iii) When there is a change in employment, money-wages tend to change in the same direction as, but not in great disproportion to, the change in employment; i.e. moderate changes in employment are not associated with very great changes in money-wages. This is a condition of the stability of prices rather than of employment.

(iv) We may add a fourth condition, which provides not so much for the stability of the system as for the tendency of a fluctuation in one direction to reverse itself in due course; namely, that a rate of investment, higher (or lower) than prevailed formerly, begins to react unfavourably (or favourably) on the marginal efficiency of capital if it is continued for a period which, measured in years, is not very large.

(i) Our first condition of stability, namely, that the multiplier, whilst greater than unity, is not very great, is highly plausible as a psychological characteristic of human nature. As real income increases, both the pressure of present needs diminishes and the margin over the established standard of life is increased; and as real income diminishes the opposite is true. Thus it is natural—at any rate on the average of the community—that current consumption should be expanded when employment increases, but by less than the full increment of real income; and that it should be diminished when employment diminishes, but by less than the full decrement of real income. Moreover, what is true of the average of individuals is likely to be also true of governments, especially in an age when a progressive increase of unemployment will usually force the State to provide relief out of borrowed funds.

But whether or not this psychological law strikes the reader as plausible *a priori*, it is certain that experience would be extremely different from what it is if the law did not hold. For in that case an increase of investment, however small, would set moving a cumulative increase of effective demand until a position of full

employment had been reached; while a decrease of investment would set moving a cumulative decrease of effective demand until no one at all was employed. Yet experience shows that we are generally in an intermediate position. It is not impossible that there may be a range within which instability does in fact prevail. But, if so, it is probably a narrow one, outside of which in either direction our psychological law must unquestionably hold good. Furthermore, it is also evident that the multiplier, though exceeding unity, is not, in normal circumstances, enormously large. For, if it were, a given change in the rate of investment would involve a great change (limited only by full or zero employment) in the rate of consumption.

(ii) Whilst our first condition provides that a moderate change in the rate of investment will not involve an indefinitely great change in the demand for consumption-goods our second condition provides that a moderate change in the prospective yield of capital-assets or in the rate of interest will not involve an indefinitely great change in the rate of investment. This is likely to be the case owing to the increasing cost of producing a greatly enlarged output from the existing equipment. If, indeed, we start from a position where there are very large surplus resources for the production of capital-assets, there may be considerable instability within a certain range; but this will cease to hold good as soon as the surplus is being largely utilised. Moreover, this condition sets a limit to the instability resulting from rapid changes in the prospective yield of capital-assets due to sharp fluctuations in business psychology or to epoch-making inventions—though more, perhaps, in the upward than in the downward direction.

(iii) Our third condition accords with our experience of human nature. For although the struggle for money-wages is, as we have pointed out above, essentially a struggle to maintain a high *relative* wage,

this struggle is likely, as employment increases, to be intensified in each individual case both because the bargaining position of the worker is improved and because the diminished marginal utility of his wage and his improved financial margin make him readier to run risks. Yet, all the same, these motives will operate within limits, and workers will not seek a much greater money-wage when employment improves or allow a very great reduction rather than suffer any unemployment at all.

But here again, whether or not this conclusion is plausible *a priori*, experience shows that some such psychological law must actually hold. For if competition between unemployed workers always led to a very great reduction of the money-wage, there would be a violent instability in the price-level. Moreover, there might be no position of stable equilibrium except in conditions consistent with full employment; since the wage-unit might have to fall without limit until it reached a point where the effect of the abundance of money in terms of the wage-unit on the rate of interest was sufficient to restore a level of full employment. At no other point could there be a resting-place.[1]

(iv) Our fourth condition, which is a condition not so much of stability as of alternate recession and recovery, is merely based on the presumption that capital-assets are of various ages, wear out with time and are not all very long-lived; so that if the rate of investment falls below a certain minimum level, it is merely a question of time (failing large fluctuations in other factors) before the marginal efficiency of capital rises sufficiently to bring about a recovery of investment above this minimum. And similarly, of course, if investment rises to a higher figure than formerly, it is only a question of time before the marginal efficiency of capital falls sufficiently to bring about

[1] The effects of changes in the wage-unit will be considered in detail in chapter 19.

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a recession unless there are compensating changes in other factors.

For this reason, even those degrees of recovery and recession, which can occur within the limitations set by our other conditions of stability, will be likely, if they persist for a sufficient length of time and are not interfered with by changes in the other factors, to cause a reverse movement in the opposite direction, until the same forces as before again reverse the direction.

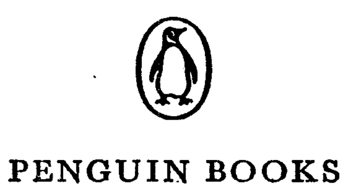
Thus our four conditions together are adequate to explain the outstanding features of our actual experience;—namely, that we oscillate, avoiding the gravest extremes of fluctuation in employment and in prices in both directions, round an intermediate position appreciably below full employment and appreciably above the minimum employment a decline below which would endanger life.

But we must not conclude that the mean position thus determined by 'natural' tendencies, namely, by those tendencies which are likely to persist, failing measures expressly designed to correct them, is, therefore, established by laws of necessity. The unimpeded rule of the above conditions is a fact of observation concerning the world as it is or has been, and not a necessary principle which cannot be changed.

MICHAEL STEWART

KEYNES AND AFTER

Second Edition



PENGUIN BOOKS

CHAPTER 7

THE TWENTIES AND THIRTIES IN THE LIGHT OF KEYNES

In Chapter 3 we traced some of the history of the 1920s and 1930s, noting the contemporary comments of one or two economists and politicians. It seems appropriate to round off the first half of this book by looking again at some aspects of the twenties and thirties in the light of Keynes's analysis. This will serve both to give a more precise indication of what went wrong during the inter-war years, and to provide an introduction to the kind of approach that successive governments have adopted towards the economy since the Second World War.

The most obvious question about the inter-war period was simply why there was so much more unemployment than there had ever been before. Why was the present so different from the past? During the century before 1914 unemployment in Britain probably averaged no more than 3 or 4 per cent; between 1919 and 1939 it averaged 13 per cent. The world economy as a whole had progressed quite happily throughout the nineteenth and early twentieth centuries – lurching about a bit from time to time, yet clearly on an upward trend; but at the end of the 1920s it plunged into a slump incomparably worse than any that had occurred before, and one which looked like going on for ever. What was the cause of this heavy and seemingly endless unemployment? According to Keynes, unemployment was a symptom of too low a level of effective demand. But this merely pushes the question one stage further back. Why should there have been too little effective demand in the 1920s and 1930s when presumably there had always been enough before?

To answer this question properly we need to break effective

demand down into a few more categories than we have done up till now. In our analysis so far we have broken down total demand (or total expenditure) into only two components, consumption and investment, since these were all that were necessary to demonstrate the essence of Keynes's argument. But we now need to take specific account of two other categories of demand – exports, and government expenditure.* These are both components of effective demand in exactly the same way as consumption or investment. Exports represent a purchase by someone (in this case a foreigner) of goods or services produced in Britain; so a fall in exports has exactly the same adverse effect on incomes, output and employment as a fall in consumption or investment. The same is true of government expenditure.

PRODUCTIVE POTENTIAL

But before we look in detail at the demand side, let us spend a moment on the supply side. The amount that a country can produce when its labour force is fully employed – let us call it the country's *productive potential* – depends on two factors. The first is the size of the working population – i.e. the number of people either in employment or looking for employment. The second is the average level of productivity, or output per head of working population – something which will be related to the state of technology in the country, and to the amount of capital equipment per head. The bigger the working population and the higher the level of productivity the larger will be the economy's productive potential. Now in spite of the vast numbers killed and disabled during the war, Britain's work-

* Technically, government (central and local) current expenditure on goods and services. Government expenditure on transfer payments (such as pensions or family allowances) is not included here, since it is already allowed for under consumption; and capital expenditure by the government or other public bodies is included in investment.

ing population was bigger in 1920 than it had been in 1914, chiefly because of a big wartime rise in the employment of women and older men. There was also some rise in productivity during the war years – output per man was perhaps 5–10 per cent higher during the early 1920s than it had been 10 years before. Taking these two factors – the rise in working population and the rise in productivity – together, one would estimate that in the early post-war period Britain's productive potential may have been some 10–15 per cent higher than it had been before the war, so that with full employment the economy would be producing 10–15 per cent more than before the war. The corollary of this was that if unemployment in the post-war period were to be as low as it had been in the years immediately before the war (when it averaged about 3 per cent) output, and hence effective demand, would have to be 10–15 per cent higher.

INADEQUATE DEMAND

Unfortunately, so far from being 10–15 per cent higher, demand was lower. The main villain was exports. As we saw in Chapter 3, Britain lost export markets during the First World War to other countries less involved in the fighting. Many of these markets were never recaptured, even when the economy moved off a war footing and industrial capacity again became available to meet export orders, because the rapid rise in British incomes and prices during the war had left many of our exports uncompetitive. As a result, exports of goods in the early 1920s were running at only about two thirds of the pre-war level; and since before the war exports had accounted for a fifth of the National Income the effect on employment was serious. Lack of competitiveness also affected employment, though to a much smaller extent, through the other side of the trade account: some manufactured imports were now higher than they would other-

wise have been, thus displacing some domestic production.

A more favourable factor was government expenditure. As one would expect, this had risen very sharply indeed during the war, and although it fell away again afterwards it remained at a higher level than before the war. Unfortunately, however, the beneficial effects on employment of this rise in government expenditure were swamped by government policy on the other side of the balance sheet, which was one of the factors responsible for keeping consumption in the early 1920s down to the pre-war level. As we saw in Chapter 3, in order to pay for war expenditure the government had increased taxation very sharply, but this did not nearly fill the gap, and there was also a big rise in government borrowing. After the war the government's expenditure fell off rapidly and so, correspondingly, did the need for taxation to pay for it. But orthodox financial practice required that each year there should be a Budget surplus so that some part of the money the government had borrowed during the war could be paid back. Therefore, it was argued, taxation must not be reduced by as much as government expenditure, because a high level of taxation was still needed to finance these repayments. As a result the standard rate of income tax, which had stood at 1s. 2d. in the £ at the outbreak of war in 1914, remained at the peak wartime figure of 6s. until 1922, and only came down to 4s. in 1925.

The effects of a high rate of income tax on effective demand, and in particular on consumption, depend in large part on what the government does with the tax revenue it collects. If it uses it to raise old age pensions or employ more nurses or primary schoolteachers consumption will probably rise, because the propensity to consume of these people is almost certainly higher than the propensity to consume of the people (roughly speaking the richer half of the community) who pay the great bulk of income tax. But to the extent that the government uses the proceeds of a high rate of income tax

to redeem the National Debt, as it did in the early 1920s, the effect on consumption is almost certain to be adverse. Those who benefit from repayments of government debt are merely receiving one kind of asset (cash) in exchange for another (government securities); though monetarists and non-monetarists might disagree on whether or not this would increase their consumption,* most of them would probably agree that any such effect would not be very marked. Those from whom the money has come, on the other hand – the income tax payers – although the richer half of the community, will nevertheless in most cases have a considerably lower level of consumption than they would have had if they had not been required to pay the tax. There is no doubt that the government's policy of keeping taxes up in order to pay off some of the National Debt had a depressing effect on consumption in the early 1920s.

But probably the most important factor behind the stagnation of consumption in the early 1920s was not that because of higher taxes (or, perhaps, greater inequality in the distribution of income) people were spending less of a given income on consumption. It was simply that the level of incomes was relatively low – and incomes were relatively low because of too little demand, including demand for consumer goods. To make the point clear: the lower level of exports obviously reduced the level of employment and incomes in the export industries. Workers attached to these industries spent less on consumption, and this meant in turn (as we saw when discussing the Multiplier) that the incomes of those making certain consumption goods were depressed, and that they in turn had less to spend on consumer goods. But the chain did not end there. The fact that in the early 1920s consumption, for whatever mixture of reasons, was low in relation to the economy's productive potential had implications for investment: if existing capacity is under-

* See the discussion in Chapter 6

utilized there is little point in installing more. Not surprisingly, investment during the early 1920s, like consumption, was no higher than it had been a decade before.

However we must not let ourselves get too tangled up in the cobweb of economic inter-relationships. The simple fact was that because of an increase in productivity, and in the size of the working population, the British economy was capable in the early 1920s of producing 10–15 per cent more than it had before the war. But consumption and investment were no higher than they had been before the war and exports were substantially lower, so that effective demand in total was 5–10 per cent lower than it had been. With actual demand and production therefore some 15–25 per cent lower than what the economy was capable of producing, heavy unemployment was inevitable. And whatever weight one assigns to different factors it is clear that two of the basic causes of this heavy unemployment were the high price of exports, and the high rate of taxation.

GOVERNMENT POLICY

The unemployment consequences of excessive export prices were perfectly apparent in the 1920s – no Keynesian spectacles were needed to see them. Moreover although the mechanism by which high rates of taxation can result in unemployment was not properly understood, no community ever lacks those who ascribe the worst contemporary ills to high taxation; certainly there were plenty of influential businessmen in the 1920s who said that unemployment would never be reduced until taxes were reduced. One might have expected, therefore, that the government would aim to cope with the unemployment problem by trying to reduce export prices, or tax rates, or both. And so it did. But it did so in a way that certainly made things no better, and if anything made them worse.

As we have seen, in order to achieve the objective of lower export prices the government did not adopt the obvious course of lowering the exchange rate – for its avowed objective, eventually achieved in 1925, was to *raise* the exchange rate back to the pre-war level. Instead it tried to reduce wages and prices enough to ensure that even though the exchange rate went up the price of British exports to foreigners would go down. In the event, resistance to wage cuts, culminating in the General Strike, prevented the reduction in wages and prices being carried far enough to restore competitiveness, and there was little change in the volume of exports for the rest of the decade, and hence little boost to employment.

But wage cuts were a more positive failure than that: although they did not go far enough to solve the export problem, they probably did go far enough to have an adverse effect on consumption. We have seen that the classical economists thought that general wage cuts would directly increase employment, and this was undoubtedly part of the rationale behind government policy; Keynes, on the other hand, thought the effects on employment would at best be neutral and at worst adverse. In this case consumption and employment almost certainly suffered from the effects of wage cuts: during the early 1920s prices fell less than wage rates so that there must have been a decline in real wages, and therefore in consumption and employment. One is therefore led to conclude that the government's policy was exactly the opposite of what was needed; had it supported *increases* in wages the effect on employment would probably have been better, at any rate as far as domestic demand was concerned. In practice, of course, the best way for a government to increase consumption is not to increase money wages, since much or all of this will before long be offset by a rise in prices, but to reduce taxation or increase pensions and other social security payments.

This brings us back to the second thing the government did, but did in such a way that the effect was almost certainly to reduce employment rather than increase it. It reduced taxation. But each time it reduced taxation it tried to follow the golden rule that in peacetime a government must avoid a Budget deficit as it would avoid the plague, and reduced its expenditure as well. The good effects on employment of higher consumption out of higher post-tax incomes were probably more than offset by the bad effects of lower public authority expenditure.

The story was not very different during the second half of the 1920s. It is true that effective demand rose quite strongly, mainly because of increases in consumption and investment. But this rise in effective demand was no greater than the rise in the economy's productive potential engendered by the growth of productivity and the working population. Consequently there was no narrowing of the gap between full employment output and actual output, and unemployment continued, year after year, at a high level of 10–12 per cent. None of the steps which Keynesian hindsight now suggests should have been taken, were taken. Government current expenditure was not significantly increased, for this would have meant an even larger Budget deficit than the one the government was already unwillingly running – and Budget deficits were simply assumed to be undesirable and indeed potentially disastrous. For the same reason, there was (after 1925) no cut in taxation which might have stimulated consumption. Nothing was done to cheapen the price of exports: the government was stuck as a matter of dogma with the pre-war, and therefore too high, exchange rate; and following the traumatic experience of the General Strike it was stuck as a matter of political reality with an inability to enforce wage reductions. It was unthinkable for a government to interfere with private enterprise by trying to persuade businessmen to increase their investment, except perhaps by

reducing interest rates, and during the 1920s Britain was so dependent on short-term borrowing from abroad that interest rates could not safely be reduced very far. On the other hand public investment could not be increased (as Keynes and some others were advocating in the later 1920s) because this would use up precious savings that might otherwise find their way into more profitable and productive private investment.

In short, nothing could be done. There was heavy unemployment in Britain throughout the 1920s because the economy had settled down into an equilibrium situation in which there was too little effective demand, and because the prevailing political and economic orthodoxy made it impossible for people to recognize that a shortage of demand was the root of the trouble, let alone to take steps to deal with it.

THE SLUMP: UNITED STATES

Throughout the 1920s Britain had been virtually alone in suffering from prolonged unemployment, but with the onset of the Slump she was soon to be joined by practically every other country on earth. The origins of the Slump lay in the down-turn in American investment which occurred at the end of the 1920s. This down-turn in investment was not in itself at all surprising – in the United States, as in Britain, the trade cycle had been a familiar phenomenon for over a century. What was surprising, and what past experience provided no precedent for, was the depth of the depression which followed this down-turn in investment; the severity with which many other countries were affected; and the refusal of the U.S. economy to recover. Some of this ground was covered in Chapter 3, and here we only glance at some of the more salient points in the light of Keynesian theory.

The severity of the down-swing in the United States (the fact that within a few years from the top of the boom, unemployment had risen to 25 per cent instead of the 6–10 per

cent customary at the bottom of the trade cycle) can perhaps be attributed to two main factors (besides the confidence effects of the Wall Street Crash). Both of these factors had their ultimate origins in the First World War.

One was the sheer strength of the investment boom which developed during the 1920s. Between 1919 and 1927 American investment nearly doubled, rising so much faster than other kinds of expenditure that it increased from 16 per cent of the National Income in 1919 to 22 per cent in 1927. Such a rapid increase in investment meant that the country's stock of capital – the number of houses and factories, the amount of plant and machinery – was being added to at an unusually rapid rate. Sooner or later it would become clear that the capital stock was big enough – perhaps more than big enough – to meet current needs: factories would be easily able to meet all the orders they received, and builders would find new houses increasingly difficult to sell. When this happened, businessmen would stop adding to their existing productive capacity, and house-building would drop; in fact the 'accelerator' would go into reverse with a vengeance (see page 46), and there would be a sharp fall in investment – much sharper than it would have been had the rise in the stock of capital been slower, and kept more in step with the rise in demand.

This is precisely what happened. Investment flattened out in 1928, and turned down in 1929. As Keynes's analysis would lead one to expect, this fall in investment led, via the Multiplier, to a substantially bigger fall in the National Income. With a lower National Income there was less reason than ever to add to existing productive capacity, so that there was a further fall in investment; and this in turn led to a further fall in the National Income. One reason why the fall in the American National Income between 1929 and 1932 was so large was that the fall in investment was so large: National Income fell by about a third, investment by three quarters.

The other main reason w[illegible] American down-turn was

so severe lay in the agricultural sector. The productivity of American farms had risen enormously under the stimulus of world-wide food shortages brought on by the war; and it continued to do so during the 1920s after pre-war sources of food and agricultural raw materials (such as Europe) had been restored. As a result world surpluses of many primary products began to emerge during the 1920s, and prices started to drop. This led to a vicious spiral, in which farm prices and farm incomes chased each other downward. Unlike an industrialist, a farmer who is faced by a lower price for his product tends to *increase* his output, for only by selling more can he offset lower prices and maintain his income; there was in fact a slight *increase* in American farm output between 1929 and 1933. But the consequence of millions of farmers trying to increase their output is a further fall in prices and farm incomes. When the over-supply which already existed in the late 1920s was accentuated by the fall in demand for food and raw materials that followed the downturn in investment in 1928–9 the situation became desperate. The prices of farm products fell by more than half in the three years after 1929, and American farm incomes suffered accordingly; and of course this fall in farm incomes itself brought the Multiplier into play, and led to a further decline in consumption and hence, as a result of the operation of the accelerator, in investment as well.*

THE SLUMP: REST OF THE WORLD

International trade and payments are fairly peripheral to the operation of the U.S. economy, and the cause of the severity of the American Slump must be sought internally in the kind of factors we have just been examining. But the same is not true in reverse; the American balance of payments

* For a general discussion of the factors affecting primary product prices, see Explanatory Note 5, page 306.

was a major factor in the affairs of the rest of the world, and the origins of the world Slump lay in America. ('When America sneezes,' as someone once put it, 'the rest of the world catches pneumonia.') One factor we have already examined in Chapter 3: the repatriation of American money from abroad, and the immense contraction in international lending to which this gave rise.

Another factor was the fall in American imports which accompanied the fall in the National Income. Foreign trade may have been unimportant to the American economy, but the U.S. was nevertheless, next to Britain, the world's biggest importer, and the 70 per cent fall in her imports between 1929 and 1933 brought bankruptcy and unemployment to export industries all over the world. Worse even than the direct effect on the exports of manufacturing countries such as Britain was the indirect effect on the value of primary producing countries' exports. Just as falling demand for primary products led (because of inelastic supply) to a big fall in their price within America, so a fall in the demand for these products on the part of Britain, Germany and other manufacturing countries led to tumbling primary product prices all over the world. The less developed countries whose exports consist very largely of primary products saw their export earnings fall catastrophically, and having little in the way of reserves were quickly forced to clamp down hard on their own imports of manufactured goods from the industrial countries. In the international sphere, just as within individual countries, falling incomes led to falling expenditure, and falling expenditure led to further falls in other people's incomes.

There was, however, one difference: in the international sphere the fall in incomes and expenditure was not entirely automatic. No doubt there were cases in which a country's imports (and therefore other countries' exports) fell solely because National Income fell. But in many cases industrial

countries took deliberate steps, by raising tariffs or imposing quotas or foreign exchange restrictions, to reduce imports, with the idea of diverting expenditure from foreign goods to home-produced goods, and thus giving a boost to employment. Such measures came to be known, not surprisingly, as 'beggar-my-neighbour' policies: countries were trying to solve their unemployment problem by passing it on to some other country. With nearly everyone forced to pursue these policies (for a country which failed to do so would soon find itself with few exports, huge imports and vast unemployment) no one benefited very much; indeed in a sense everyone suffered, for many of the benefits of greater specialization, which are the underlying reason for international trade, were inevitably lost. Yet import restrictions, however self-defeating, seemed to many desperate governments the only quick and practical step that might alleviate a little the unemployment that threatened to swamp them.

In Keynesian terms, then, the Great Slump was a reflection of too little effective demand on a world-wide scale. Expenditure was too low; therefore incomes were too low; therefore expenditure was too low. The initial cause of this was a big decline in investment in the United States, which was not offset by a rise in consumption or any other category of expenditure, and therefore led to a progressive slide in output and employment. Partly as a result of special factors owing their origins to the war the great American contraction convulsed countries all over the world. Banks failed, businesses went bankrupt, incomes plummeted and tens of millions of men were thrown out of work. By 1933 there were probably 30 million unemployed in the industrialized countries alone.

NO RECOVERY

This down-swing in world economic activity was not only much more severe than any previous down-swing; it was not

succeeded by an up-swing. In the U.S. unemployment rose from 3 per cent in 1929 to 25 per cent in 193[illegible]en fell very little, to 22 per cent in 1934 and 20 per cent in 1935. The U.S. economy – and with it the world economy – had got stuck at the bottom of the down-swing. What was supposed to happen in this situation, according to all the trade cycle literature, was a recovery in investment, induced by the emergence of profitable opportunities on the one hand, and lower costs, including lower interest rates, on the other. Keynes broadly agreed with this. But, as we saw in Chapter 4, he believed that the yield of new investment was largely determined by the amount of existing capital equipment in the economy and the extent to which it was being used. In the U.S. in 1933 there was a very large amount of capital equipment and a great deal of it was not being used. The yield to be obtained by installing yet more capital equipment seemed likely to be pretty low. But what about the other determinant of investment, the rate of interest? This, said Keynes, was determined by liquidity preference and the quantity of money, and it seemed that when interest rates got down to a certain level (perhaps 2–2½ per cent) it proved impossible to force them down any further, because any increase in the quantity of money (which should have the effect of reducing interest rates) was offset by an equal increase in liquidity preference. It could therefore happen, said Keynes, that the yield of new investment was lower than the rate of interest: a man might be unable to borrow for less than 2 per cent, yet be unable to find an investment project that yielded more than 1½ per cent. When this happens no sane businessman will invest. According to Keynes, this is precisely what happened in the United States, and to a lesser extent in Britain, in the 1930s.

If investment is very low then saving will have to be equally low, and given a fairly normal propensity to consume among the population this will only happen if the National

Income is low. An equilibrium gets established in which the National Income is much lower than the economy's productive potential, and unemployment is high. Until either consumption or investment or exports or government expenditure rises this low-level equilibrium will persist. It is virtually impossible for consumption to rise of its own accord, for incomes and saving are now so low that even if people cut their propensity to save in order to increase their consumption it would not make very much difference. And as long as consumption stays so low there is no particular reason why businessmen should chance their arm by increasing investment. And exports are unlikely to rise as long as there is heavy unemployment in other countries. If anything is to be done, therefore, it must be done by the government, which can stimulate consumption by cutting taxation, or (the remedy Keynes preferred) can create employment by itself spending large sums on public works.

THE NEW DEAL

Curiously enough, it was not in Britain, the country most exposed to Keynes's views, and one which had a supposedly left-wing government for the first two years of the Slump, that an attempt was made to alleviate unemployment by public works, but in the United States, supposedly the last bastion of capitalism. The 'New Deal' which Roosevelt introduced in 1933 got off to rather a shaky start, by trying simultaneously to raise wages, in order to increase consumption, and to raise prices, in order to provide businessmen with an inducement to invest; obviously one or other of these measures might have had some effect, but the two together were self-defeating. But after a year or two the public works programmes which are now thought of as the essence of the New Deal got under way. The Administration started to spend large sums of money [illegible]d above what it received in tax

revenue on roads, dams, harbours, irrigation and land reclamation works, public buildings, housing estates and projects of many other kinds. Thus the Administration directly provided a large amount of employment, and indirectly a lot more; for the men it paid to build the roads and dams spent the money on goods and services and thus provided employment for others. The increase in government expenditure put the Multiplier into operation in exactly the same way as a rise in investment or consumption would have done.

The counterpart of this policy, under which the Administration spent more than its income, was of course a Budget deficit of the kind so dreaded by orthodox economists and politicians. In 1929–30* the federal Budget had been in modest surplus, as was considered correct and necessary to help pay off the National Debt: expenditure was $3·4 billion and tax revenue $4·2 billion. By 1935–6 expenditure had risen to over $8·5 billion, though tax revenue was only $4·1 billion; as a result there was a deficit of nearly $4½ billion. Every year throughout the rest of the 1930s there was a Budget deficit (indeed the next time there was a surplus was 1946–7) and by the time the U.S. again found itself at war the National Debt, which had stood at some $20 billion when Roosevelt became President, was over $50 billion. In fact the National Debt, which in the eyes of the faithful is only supposed to increase in wartime, and then only if really necessary, had more than doubled in eight peacetime years. This fact was – and indeed still is – held bitterly against Roosevelt by many people in the United States. Yet looking back today any economist or politician who has assimilated Keynes must feel that the only trouble with the U.S. Administration's deficit spending in the 1930s was that it did not go nearly far enough. Under the stimulus of large government expenditures there was a substantial rise in employment, but the total labour force was also rising, and unemployment only

* American financial years run from 1 July to 30 June.

fell to 14 per cent (in 1937 and actually rose again (to 19 per cent) in 1938. A large part of the trouble was that despite the rise in consumption resulting from government spending, private investment still refused to revive properly; even in the later 1930s, though there was some recovery from the very low levels in the depth of the depression, investment was still much lower than it had been immediately before 1929. Those hostile to Roosevelt claimed at the time that this was because his policy of deficit spending had destroyed confidence among the business community; other critics advanced the old theory with which Keynes had been confronted in the 1920s by the British Treasury, that expenditure on public works uses up savings that would otherwise have been used to finance private investment. In fact a much more compelling explanation seems to have been the excessive amount of idle productive capacity referred to earlier. Until demand was high enough to call existing capital equipment into use there seemed no point in installing more. Only an even greater increase in government expenditure could have led at all quickly to this. As it was, it was only with the massive rearmament programme on which the United States embarked at the end of the 1930s that any real impact was made on unemployment; and so vast were the numbers out of work that it was not until 1941 – the year of Pearl Harbor – that unemployment fell below 10 per cent.

GERMANY

Another country whose heavy unemployment was tackled by large-scale public expenditure was Germany. When the Nazis came to power in early 1933 they started a vigorous spending campaign: roads and railways were built and rebuilt, large-scale land improvement schemes were embarked on and, in the private sector, businessmen were given subsidies to encourage them to invest. These measures effected a

drastic reduction in unemployment, which was carried further when re-armament got under way in 1935. By 1936 or soon after, while Britain and America were still struggling with unemployment rates of 15 per cent or more, the problem had virtually disappeared in Germany. Within three or four years Hitler's policies had resulted in a big enough rise in effective demand to re-employ most of the six million men who had been out of a job when he came to power. No wonder he enjoyed a certain popularity. Of course he also incurred very large Budget deficits, but what is an unbalanced Budget or two to set against the building of an Empire that will last for a thousand years?

BRITISH POLICY IN THE 1930S

Britain, of course, had long since left the Empire-building business; it might have suffered less in the 1930s if it had not. Throughout most of the decade the principal aim of the British government was not world domination but prudent housekeeping. From about the middle of the 1920s, as we saw in Chapter 3, the Exchequer had suffered from a small but growing deficit. After the onset of the world Slump in 1929 this deficit leaped alarmingly. The government reacted like any worried housewife. On one side of the account steps were taken to cut back expenditure – steps that faltered a little at first but became much firmer after the formation of the National government in August 1931: public expenditure was reduced in 1932 and continued to fall for several years. On the other side of the account steps were taken to increase the government's revenue: the standard rate of income tax was raised, and so were various indirect taxes, notably the duties on tobacco, beer and petrol. These tax increases did not, in fact, succeed in raising government revenue very much: higher rates of income tax were offset by lower incomes, and higher taxes on expenditure by falling expendi-

ture. Nevertheless the combination of cuts in public expenditure and increases in taxation did put the Exchequer back on the road to the black: the Budget deficit started to fall and by 1934 there was again a small surplus. The government's satisfaction with this state of affairs was summed up in 1935 by the Chancellor of the Exchequer, Neville Chamberlain. Speaking with the air of a man recalling some arduous but in the end victorious military campaign he said, 'By cuts, by economy and by severe taxation the Budget was balanced.' He failed to add that in the meantime unemployment had doubled. Yet in the light of Keynes's analysis one can see that this was bound to be the result: cuts in public expenditure, and increases in taxation which force individuals to reduce their consumption, both lead to falling incomes and further reductions in expenditure. In Britain, even more than in the United States, where at least government policy was aimed in the right direction, it was only the onset of re-armament and finally of the Second World War itself that really solved the unemployment problem.

THE INTER-WAR YEARS IN RETROSPECT

We have seen that during practically the whole of the inter-war period Britain suffered from too low a level of effective demand; during much of the second half of the period the disease afflicted the rest of the world as well. Some of the immediate causes of this deficiency of demand we have traced – for example, the weakness of exports in the case of Britain, and the slump in investment in the case of the United States. Yet unemployment as severe and long-lasting as this was an entirely new phenomenon, and prompts the question of whether there was some more fundamental force at work which had permanently upset the balance of supply and demand; or, to put it in the simplest Keynesian terms, which made people want to save more at full employ-

ment levels of income than businessmen wanted to invest.

As is clear both from the *General Theory* and from one or two other writings, Keynes himself took fairly seriously the notion that the industrial countries of the West, and particularly Britain and America, were reaching a stage of economic maturity in which there was a danger of a chronic tendency for effective demand to fall short of productive potential. He pin-pointed likely weaknesses in both consumption and investment. A principal element in the latter was the ever-increasing quantity of capital equipment in such advanced industrial countries and – as he saw it – a corresponding long-run decline in the marginal efficiency of capital. If investment were to be large enough to make a substantial contribution towards maintaining full employment in this situation, interest rates must be kept very low (indeed he thought the rate of return on capital to be expected in a capital-plentiful economy would be so low as to lead before long to the 'euthanasia of the rentier' – i.e. the disappearance of incomes derived solely from the ownership of capital). But not even these very low interest rates would ensure the right amount of investment, and Keynes came to a fairly radical conclusion about the main measure the situation would require; in his own words, 'I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation to full employment.'*

On the consumption side, too, the requirements of the kind of mature industrial economy Keynes thought he was contemplating seemed to call for a significant change in traditional attitudes and arrangements. From the beginning of recorded time (or at any rate from the time of Aesop, which is much the same thing) it has been an axiom of organized society that sensible people will put aside a bit of their current income in the form of saving. And if it is sensible for an indi-

* *General Theory*, page 378

vidual to save, it must also be sensible for a nation to save; as Adam Smith put it, 'What is prudence in the conduct of every private family can scarce be folly in that of a great Kingdom.'

But only in an economy which is fully employed is saving a virtue; in an economy with a chronic tendency to under-employment, it becomes a vice: attempts to save lead, paradoxically, to incomes and saving being lower than they would otherwise have been.* For in an economy in which

* See the numerical example on page 123. The heresy that saving is a vice rather than a virtue has a long history, and Keynes briefly traced it in one of the Notes appended to the *General Theory*. He referred in particular to a work by Bernard Mandeville, entitled *The Fable of the Bees* (and significantly sub-titled *Private Vices, Publick Benefits*). The heart of this work (which was convicted as a 'nuisance' by the Grand Jury of Middlesex in 1723) is an allegorical poem called *The Grumbling Hive: or, Knaves Turn'd Honest*, which describes the dreadful fate of a prosperous community in which the citizens suddenly decide to abandon their extravagant way of life and start to save in the sort of way that conventional morality would prescribe. Before this misguided decision,

'The Root of evil Avarice,
That damn'd ill-natur'd baneful Vice,
Was Slave to Prodigality,
That Noble Sin; whilst Luxury
Employ'd a Million of the Poor,
And odious Pride a Million more.'

And afterwards,

'But, Oh ye Gods! What Consternation,
How vast and sudden was th'Alteration!
In half an Hour, the Nation round,
Meat fell a Penny in the Pound.'

And later,

'As Pride and Luxury decrease,
So by degrees they leave the Seas,
Not Merchants now; but Companies
Remove whole Manufacturies.
All Arts and Crafts neglected lie;
Content, the Bane of Industry,
Makes 'em admire their homely Store,
And neither seek, nor covet more.'

investment is unlikely to be very great because the rate of return on capital is unlikely to be very great, saving must be kept relatively low. Or, to put it the other way round, consumption must be kept at a high level. This was unlikely, according to Keynes, to happen by itself in an advanced capitalist economy like Britain in which there were very great disparities in the distribution of income and wealth; tax policies designed to distribute income more equally would be required if the propensity to consume were to be kept at a high enough level.

Keynes himself, then, made some play with the notion that there was something rather new about the unprecedentedly heavy unemployment of the 1930s. He was inclined to take it as a reflection of a deep-seated problem increasingly afflicting advanced industrial economies as the stock of capital grew and the rate of return on it declined, and as the propensity to consume – given a very unequal distribution of income – remained too low to absorb the output the economy was capable of producing. But Keynes – unlike contemporary Marxists – believed that this problem could probably be solved within the framework of a liberal capitalist society: it might not be easy, it might require a very considerable degree of government intervention in the economy, but it probably could be done. A number of other economists who accepted Keynes's analysis took a much gloomier view of the possibility of coping with the problem, arguing that the British and American economies were settling into a state of permanent stagnation, and that government action of the kind recommended by Keynes would never be able to increase demand sufficiently to employ the country's resources to the full.

Today this latter appraisal is difficult to comprehend; even Keynes's own views, with their implication that in such countries as Britain and America it would for evermore be a hard and unremitting struggle to maintain full employment, seem absurdly gloomy. But they serve, perhaps, as a salutary

reminder of how hopeless the unemployment problem appeared in the 1930s, and of how difficult even Keynes must have found it to envisage an economy in which too many calls on resources, rather than too few, would be the constant preoccupation of economists and politicians. For, looking back over the last thirty or forty years, one can see no real signs of a long-term decline in the rate of return on capital, or of any disposition on the part of the population as a whole to save more of their full-employment incomes than can be absorbed in investment. The story might have been different in the absence of some of the most characteristic features of the period since the Second World War – the near-frenzied development of new products and processes, and the explosive growth of advertising. But these are the offshoots – desirable or not – of the very capitalist economy that Keynes was analysing. They hardly suggest that the heavy unemployment of the 1930s was a reflection of a new situation in the advanced industrial countries of the West, in which society could now produce more than it would ever again want to consume. They are consistent, rather, with the basic idea expounded in the *General Theory*, that in such economies an equilibrium can be established a long way below full employment, in which both businessmen and families lack either the incentive or the means to increase their expenditure; and that it is only the government, if necessary by deficit financing, which can break into the circle, increase effective demand, and set the economy on the path back to full employment.

This is not to say that the Great Slump had nothing to do with some of the changes which had taken place in the economies of Western countries over the previous fifty or a hundred years. The emergence, for example, of a situation in which savings were not automatically invested (partly because to an important extent saving and investment were now different activities carried out by different groups of people) was, as we have seen, a crucial factor in the mechanism of pro-

longed unemployment. But the search for some great cosmic factor which decreed that although great slumps had not been a problem in the past they would, unless one was very cunning in countering them, be a continual problem in the future – such a search, even though Keynes himself showed some disposition to join in it, seems to have been a wild goose chase. The more prosaic kind of investigation we have been engaging in, of examining the specific factors which influence particular components of demand at particular times, seems a better guide to the truth. Or so post-war experience would suggest.

It is to some aspects of post-war experience that we now turn.



MICHAEL STEWART

KEYNES AND AFTER

Second Edition



PENGUIN BOOKS

CHAPTER 2

ECONOMICS BEFORE KEYNES

THERE was one particularly alarming feature of the heavy unemployment between the wars. This was that although practical men tackled it in a common-sense sort of way, they not merely failed to cure it, but actually made it worse. Keynes had an explanation of this. 'The ideas of economists and political philosophers,' he wrote in the *General Theory* 'are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist.' It was precisely because the practical men of the 1920s and 1930s were the slaves of defunct economists – defunct in the sense that since their time the world had changed, invalidating as it did so some of the assumptions on which their theories were based – that things went so badly wrong. In order to understand the inter-war years, and the significance of Keynes's theory, we must begin by taking a look at what pre-Keynesian economists had said on the subject of employment.

SMITH, RICARDO AND MALTHUS

Economics goes back a long way – the ancients were by no means innocent of it – but for practical purposes one can take the founder of modern economics to be Adam Smith, who published *The Wealth of Nations* in 1776. Smith, possibly the original eccentric, absent-minded professor, dictated this book standing with his back to the fire, and perhaps in consequence it rambles over the whole field of human knowledge: in the vast index (not compiled by Smith) the As begin with

Abassides, during reigns of, Saracens opulent and the Zs with *Zama, battle of, and armies engaged in.* Yet, despite its great sweep, and its pre-eminent concern with what we would now call 'economic growth', the book contains no real discussion of why the level of employment is what it is. Clearly, this was not a question which interested the author; indeed it probably never occurred to him to ask it. In Smith's day agriculture was still by far the most important economic activity, and in an agricultural society the line between being employed and being unemployed tends to be blurred: the whole family works, but may be underemployed. Moreover wages were so low that the distinction between employed and unemployed, when it could be made, seemed much less significant than other divisions within society – for example those between landowners, businessmen and workers. In effect, Smith simply assumed that there was always full employment.*

The next economist of major importance was David Ricardo, a wealthy stockbroker, and later an M.P., who published the first edition of his *Principles of Political Economy and Taxation* in 1817. Like many nineteenth-century economists who came after him, his main interest lay in the factors which governed the distribution of a nation's income between the main social classes – landowners, capitalists and workers (in other words rent, profits and wages). We cannot get involved in Ricardo's main contributions to economics here; the relevant point for our purposes is that he regarded businessmen's investment in machinery and equipment as one of the most important activities in the economy. Businessmen must make large profits, he said, because they would invest them in new machinery; and this new machinery would enable more to be produced, and thus make the country richer.

In his view that investment in more and more machinery

* For a brief account of what is meant by 'full employment' see Explanatory Note 1, page 301.

was a good thing, Ricardo found himself opposed by a clergyman and Cambridge don (Keynes called him 'the first of the Cambridge economists') called Thomas Robert Malthus. Malthus is best known today for his theory of population, according to which there is a tendency for the population to increase much faster than the supply of food – a tendency which results in periodic famines. With this part of Malthus's work Ricardo did not disagree. But there was another side to Malthus's work which proved far more controversial, and in the lengthy, friendly dialogue which developed between Ricardo and Malthus we come across – perhaps for the first time – an explicit discussion of what it is that determines the level of employment.

Perhaps because he identified himself with the landed classes (as opposed to Ricardo, the spokesman of the up-and-coming manufacturers) Malthus took a dim view of the process of accumulating capital and investing it in industrial machinery. There was a danger, he argued, that this investment would raise society's ability to produce at a faster rate than its ability to consume. The wages received by the workers, after all, represent only a part of the value of what they produce – so that only a part of all the goods produced can be bought by the workers. What is going to happen to the rest? Is there not a danger, as more machinery is installed in industry, and total production rises, that the country will find itself with a 'general glut of commodities' which cannot be sold? Will this not lead to unemployment? And is it not fortunate, he went on (overdoing it a bit, perhaps) that there is a large class of landowners who up till now, by producing nothing but consuming a lot, have managed to stave off the evil day when this general glut of commodities will appear?

Ricardo's reply was remarkable for both its plausibility and its durability: what Ricardo said in the 1820s was being solemnly repeated by orthodox economists in the 1920s (as Keynes said, 'Ricardo conquered England as completely as

the Holy Inquisition conquered Spain'*). He agreed with Malthus that it was possible to have a glut of commodities – but only a temporary glut of a particular kind of commodity. Some sudden shock (a war, a change in fashion or taxation) could result in a fall in the demand for a particular commodity. There would, for a time, be a glut of this commodity on the market, and some of the machinery and men who produced it would find themselves idle. But meanwhile the demand for some other commodity would have risen, for if people spend less on one thing they will spend more on another, and there would be a shortage of this other commodity. High wages and profits could be earned by producing this new commodity, and so extra labour and capital would start moving into this industry; at the same time, of course, it would be moving out of the old industry whose products were no longer in demand. Before long, equilibrium would have been re-established with a new pattern of production. So the only kind of unemployment – of either men or machinery – that was possible was temporary unemployment, during the transitional phase of a shift in the pattern of demand.

As for Malthus's argument that there might be a *general* glut of commodities (and, by implication, widespread un-

* *General Theory*, page 32. It is impossible to resist quoting the next paragraph a typically splendid piece of Keynesian irony:

'The completeness of the Ricardian victory is something of a curiosity and a mystery. It must have been due to a complex of suitabilities in the doctrine to the environment into which it was projected. That it reached conclusions quite different from what the ordinary uninstructed person would expect, added, I suppose, to its intellectual prestige. That its teaching, translated into practice, was austere and often unpalatable, lent it virtue. That it was adapted to carry a vast and consistent logical superstructure, gave it beauty. That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress, and the attempt to change such things as likely on the whole to do more harm than good, commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social force behind authority.'

employment) because workers could only afford to buy a part of what they produced, this was absurd. Here Ricardo invoked the writings of a French economist called J. B. Say. What has come to be known as 'Say's Law' was first propounded in 1803, and has been a rich source of confusion ever since. It is usually summarized by saying 'supply creates its own demand.' This means that the very processes which result in a commodity being placed on the market also result in the creation of the income with which it can be bought. For the final price of a commodity is simply the cost of the materials and labour used to make it, plus the profit that accrues to the manufacturer. In other words the supplier of materials, the worker and the capitalist have between them made exactly enough money, by producing the article, to enable them to buy it. They do not, of course, buy the article they themselves have produced, but what is true of one firm is true of all firms taken together: exactly enough income is created to enable the population to buy everything that is produced. A glut of commodities – goods which get produced but for which no buyer can be found – is therefore an absurdity.

But what happens, Malthus wondered, if the capitalists do not *spend* their profits, but *save* them instead? Surely, in that case, one would get a glut of commodities? For some of the money which has to be spent, if the market is to be cleared, is not being spent; it is staying in the capitalist's pocket.

Again, Ricardo had an answer. The money that the capitalist saves, he explained, does *not* simply stay in his pocket; it is invested – that is to say, it is spent on machinery, equipment, buildings and so on. In other words, the fact that the capitalist does not spend all his profits on consumer goods does not mean that the profits do not get spent. On the contrary, they are spent on machinery and other capital goods, and it is for this reason that firms which manufacture machinery are able, like other firms, to sell everything they produce.

Competition forces capitalist firms to invest their profits in labour-saving machinery, for if they do not do this their efficiency will drop, and they will be forced out of business. But if labour-saving machinery is installed, there will be a fall in employment and hence a rise in the number of unemployed. As unemployment rises, wages (if not already at subsistence level) will tend to fall – for those who still have jobs will be forced by the capitalists to accept lower wages under threat of being replaced by some of the 'reserve army' of the unemployed. But according to Marx, a fall in employment also meant a fall in profits, because the value of what is produced depends on the number of man-hours involved in producing it. This fall in profits leads before long to a crisis: profits fall so low that many businesses go bankrupt; investment in plant and machinery more or less ceases; more workers lose their jobs, and the reserve army of the unemployed grows. In fact, the economy is in the depths of a depression. Eventually the crisis comes to an end, as big firms swallow up small firms, buying their plant and equipment at knock-down prices, and thus getting back into a position where they can make profits. But in spite of these periodic recoveries, there is a long-term trend at work which makes each crisis worse than the previous one. The main factor in this is the growing monopolization of business – the result of bigger firms taking over smaller ones at times of crisis. As firms become bigger and the economy more monopolized, the competition which originally impelled firms to invest their profits in machinery weakens, and with it the incentive to continue this sort of investment. In the long run, therefore, firms will have little incentive to invest their profits (as Ricardo had assumed they would) and, since only a small part of the capitalists' profits can be spent on consumption, the general glut of commodities that Malthus had been afraid of will become a reality. As a result, unemployment will get heavier and heavier.

To many people in the 1930s Marx's work came as a blinding revelation. He had, it seemed, not merely predicted the slump and explained its underlying causes but even in a sense put forward a solution to it. (And since – contrary to Marx's own expectations – it happened to be in Russia that the revolution he had predicted and called for actually took place, it was therefore towards Soviet communism that many of the most intelligent and sensitive people in Western Europe were drawn in their search for a solution to the mass unemployment of the 1930s.)

But although there are great nuggets of truth in Marx's analysis, as an explanation of what happened in the 1920s and 1930s it will not really do. There were many similarities between what happened and what Marx said would happen, but the ineluctable fact remained that Marx's whole analysis depended on the standard of living of the average worker remaining in the long run at subsistence level, whereas experience had been quite different: in Britain real income per head in 1920 (and even in the worst year of the slump, 1932) was more than double what it had been in 1860.

Nevertheless, in spite of the fact that his theory of economic development cannot be swallowed whole, Marx did represent a very significant landmark in the evolution of economic theory. It was much more difficult, after he had written, to believe that the capitalist economy, if left to itself, would necessarily function satisfactorily. In particular, it was more difficult to accept Ricardo's view that profits were always invested in new machinery. For one of the points Marx was making was that society's capacity to produce *will* outstrip its capacity to consume: in the capitalist economy the workers cannot consume much because their wages are so low; the capitalists cannot consume much because there are so few of them; and there is no point in them putting their profits to their other possible use (investment), because there will not

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be enough demand for the goods that new machinery could turn out to make it worthwhile.

THE THEORY OF PRICE

Marx, as we have said, was an exception. Most economists during the century or so after about 1820 concerned themselves mainly with microeconomic problems. Much of this lies outside our field, but we must spotlight a few strands of this microeconomic theory because of their importance to an understanding of what economists thought in the 1920s.

The main concern of nineteenth-century economics was with what determined the *price* or *value* of an article, or a factor of production. (The price of something was not thought to be necessarily the same as its value – this distinction was itself the source of endless discussion.) Quite soon after the death of Ricardo the price of an article came to be explained less in terms of what it had cost to produce, and more in terms of what people were willing to pay for it. Adam Smith and Ricardo had said, in effect, that an article cost £1 because two hours' work, at a rate of pay of 50p an hour, had been needed to make it; the new 'theory of utility' said that it cost £1 because that was what someone was willing to pay for it. The new approach was summed up by an economist (later an Archbishop – the nineteenth century did not believe in too much specialization) called Whately who said, 'It is not that pearls fetch a high price *because* men have dived for them; but on the contrary, men dive for them because they fetch a high price.' As the century wore on more sophisticated theories came to be advanced, both of what determined how much it cost to produce an article, and of what determined how much people were willing to pay for it. The whole thing was summarized by the Cambridge economist Alfred Marshall, who said that supply and demand should be regarded as the two blades of a pair of scissors – both of them being

necessary to explain the price of an article. For any article one could (if one had perfect knowledge) construct a 'demand curve', which would tell you how many of these articles would be demanded (i.e. bought) at different prices. In general, one would expect that the higher the price, the smaller the number of this particular article that would be bought. The exact number bought at any particular price would depend on such factors as people's income and tastes, the prices of other articles (particularly those which were close substitutes) and so on.

In the same way, said Marshall, one could, at any rate in theory, construct a 'supply curve', which would tell you how many of these articles would be supplied (i.e. produced) at different prices. In this case, there is a presumption that the higher the price, the greater the number that would be produced, but the exact number produced at any particular price would depend on the price the manufacturer had to pay for his labour, materials and equipment – and the profit he required for himself in order to keep him in business. The price actually established would of course be the price at which the number of articles demanded was exactly equal to the number supplied; in other words the price at which the number that customers wanted to buy was the same as the number that manufacturers wanted to produce.

Refinement and synthesis of supply and demand theory did not stop with Marshall. It continued to form the main preoccupation of economists until the 1930s – and indeed was given a new lease of life in the early 1930s by a revolutionary change in the theory's framework of reference – a change which resulted from new thinking (with which Keynes himself was to some extent associated) in Cambridge and at Harvard.*

* Nineteenth-century theory had assumed (reasonably enough, given the structure of agriculture and industry at the time the theory was evolved) that firms in the same industry were in 'perfect' competition

DIMINISHING RETURNS AND MARGINAL PRODUCTIVITY

Now the important point about this supply and demand analysis for our present purpose is that it was supposed to be of general application, explaining the price of anything which had a price. Thus it was supposed to explain not only the price of goods, but also the price of *money* (i.e. the rate of interest) and the price of *labour* (i.e. wages). It is convenient to hold over until later (page 42 and pages 119–21) a discussion of what nineteenth-century economists thought about interest rates; here we concentrate on what they thought about wages.

The average wage, they said, was simply the price of labour, and it was determined, like the price of anything else, by the interaction of supply and demand. In the short run the supply of labour was fixed – it was simply the total population, or at any rate those parts of it which were accustomed to work. (In the longer run, of course, the size of population changed, but we can ignore this for the purposes of the present analysis.) How, then, did elements on the demand side interact with this fixed supply of labour in order to determine its price – i.e. the average wage? In order to

with each other – meaning that they were relatively small, and all produced exactly the same product. Consequently the individual firm had no control over the price of its goods – it had to accept the price established 'in the market' by supply and demand. For if it raised its price above the market price it would immediately lose all its business; while if it lowered its price below the market price it would make a smaller profit. The new theory, of 'imperfect' or 'monopolistic' competition, recognized that a modern firm's products are not in fact considered by its customers to be exactly the same as its rivals'. Consequently it does have some control over its price – it can raise its price without losing all its business, and in some cases make bigger profits by lowering prices because it can then expand its sales.

understand this we must take a brief look at two essentially simple bits of economic folklore, one rather confidently called the *Law of Diminishing Returns*, the other, more modestly, the *Theory of Marginal Productivity*.

The Law of Diminishing Returns was what Malthus had had in mind when predicting that world population would grow faster than world food supplies, leading to periodic famines. The Law said that beyond a certain point, the more of one factor of production you apply to a fixed amount of another factor of production, the smaller is the additional output. To take a concrete example, suppose that 10 men work on 1 acre of land and produce a total of 100 beetroot a year – 10 per man. Now assume an increase in the labour force (on the same 1 acre of land) to 11. Production of beetroot will rise, says the Law, but only to 109. The extra man only produces 9 beetroot, whereas each of the previous men produced, on average, 10. Add a twelfth man; production will rise again, but only to 117. The twelfth man has only produced 8 beetroot. Diminishing returns have set in. One result of this, of course, is that average production per man employed has dropped – from 10 beetroot per man when there were only 10 men to 9¾ when there were 12 men. (It was precisely this effect, on a much larger scale, that Malthus was afraid of.) But it is the fact that each additional man has the effect of raising production *less than the previous additional man* that is important in the present context.

Now let us look at the Theory of Marginal Productivity. This states that each factor of production will be paid the value of its marginal product. In other words the pay of labour (the average wage) will be equal to the value of what is produced by the marginal man – the man that the farmer or manufacturer thinks it is just worth his while to employ. Let us go back to the beetroot example in order to make the argument clear.

Suppose, for the sake of simplicity, that the demand for

beetroot is such that each beetroot can be sold for £1, regardless of how many are produced. In our example, in which the Law of Diminishing Returns was operating, when the labour force increased from 10 to 11, the addition to output was 9 beetroot, which would be worth £9. If, therefore, the wages of this eleventh man were £8, it was obviously in the farmer's interest to take him on: his sales have risen by £9, his costs by only £8, and therefore his profits by £1. If, on the other hand, the eleventh man's wages had been £10 it would not have been worth taking him on – taking him on would have involved the farmer in a £1 loss. In fact, it will benefit the farmer to take the man on provided that his wage is £8·99 or less. Since it will also benefit other farmers to do the same, competition will ensure that the man *is* taken on at a wage of £8·99 (which let us call £9) – i.e. *at a wage equal to the value of what he produces*. But if this man is paid £9, then all other men (of similar skill etc.) will also be paid £9, for 'perfect' competition makes it impossible for different prices to be paid for identical articles or factors of production.

In our example, then, if the labour force consists of eleven men, the wage that each of them receives will be £9, since this is the value of the extra output that accrues as a result of taking the eleventh man on. But suppose, as in our previous example, that the labour force is increased to 12, and that the addition of this twelfth man to the same 1 acre of land only results in the production of 8 more beetroot, worth £8. In that case, of course, the wage of each of the 12 men will be only £8. In other words, *the larger the number of men employed, the lower the average wage.*

Nineteenth-century theory did not claim that this principle operated at all times and in all places. It was obviously not true that (as in our simplified example) an ever-growing labour force was being continuously added to a fixed amount of land. Land was not in practice a fixed factor of production – new land could be brought into cultivation in this or other

countries (during the nineteenth century emigration from Britain to much more sparsely populated countries was, in fact, at its height). And the quantity of man-made capital (machinery and equipment) was of course being continuously increased. Moreover, even in the extreme case in which an increasing labour force was working with the same amount of land or capital, there might be a range over which there were *increasing* returns from each additional man.

Nevertheless it was broadly accepted that in most cases, and particularly in the short run (roughly defined as a period within which there would not be much change in the size of population or amount of land and capital) the Law of Diminishing Returns and the Theory of Marginal Productivity would both operate.

The implications of this are worth stressing. The Law of Diminishing Returns said that the more men were employed, the less would the last man produce. The Theory of Marginal Productivity said that the last man would be paid the value of what he produced. Therefore the more men were employed, the less would the last man be paid. But since competition will ensure that the last man is paid much the same as other men, this means that the more men are employed, the less will each man in the labour force be paid – in other words the less will be the average wage. This apparently inexorable connection between employment and wages lay deep in the subconscious minds of the practical men of the 1920s and 1930s, as we shall see.

THE TRADE CYCLE

As we have indicated, during the late eighteenth and early nineteenth centuries economists were not particularly interested in what determined the level of employment, or in the distinction between employment and unemployment. In a semi-agricultural society it is broadly true that everyone old

enough to work does work, and widespread *underemployment* is a much more characteristic feature than a clear-cut division between those who have jobs and those who have not.

But as the nineteenth century wore on Britain became increasingly industrialized, and the distinction between being employed and being unemployed began to assume some substance. The phenomenon which drew attention to this distinction had probably been operating in a subdued way since some time in the eighteenth century, but it was only now that people really became aware of it. This was the 'trade cycle'.*

The trade cycle was, as the term implies, a pattern of events which was repeated in similar form at fairly regular intervals. From beginning to end it would last some eight or ten years. On the up-swing everything would expand: production, employment, wages, profits and prices would all rise, and unemployment would fall to a low level – perhaps 1 or 2 per cent of the labour force. This phase would last for perhaps four or five years. Then everything would level off and, sometimes immediately, sometimes after a year or two, would start to fall again. The down-swing would last, in a typical instance, for three or four years, with production, employment, incomes and prices all falling, and unemployment rising to a rate of 8 or 10 per cent. Then it would level off, and the stage would be set for another burst of expansion. The cycle was superimposed, however, on a rising trend: at each peak, production and employment tended to be higher than at the previous peak, and would not fall as low in each trough as in the previous trough. A graph of production or employment during the nineteenth century would look rather like a staircase tilted slightly forward.

As we have seen, Marx was one of the first people to give serious attention to the trade cycle. His account was soon to be followed by many others. One of the most engaging was

* The Victorians said 'trade' where we would tend to say 'production'. To avoid ambiguity the Americans use the term 'business cycle'.

provided in 1878 by W. S. Jevons, Professor of Political Economy in the University of Manchester. According to Jevons, the cycle was caused by sun-spots: sun-spot cycles caused weather cycles, which caused harvest cycles, which in turn resulted in trade cycles. In support of his theory Jevons argued that during the previous 150 years each trade cycle had lasted, on average, for some 10·44 years; the average length of the sun-spot cycle was 10·45 years. These figures were too close to each other to be a coincidence.

This pleasingly direct link between celestial and terrestrial events was soon abandoned. Later calculations suggested different figures for the average length of the trade cycle, and in any case those who supported the theory could never agree among themselves on the vital point of whether good harvests had good or bad effects on the rest of the economy. But the main reason for the abandonment of the kind of harvest theory originated by Jevons was simply that as the economy became more industrialized (and this applied to the United States and Germany as well as Britain) a theory of the trade cycle which relied so heavily on agricultural developments became less and less satisfactory. Instead, people began increasingly to look – as Marx had done – for sources of instability within the industrial system itself.

During the first twenty or thirty years of the twentieth century a great deal of thought was devoted to the trade cycle, not only in Britain, but in many of the other most advanced industrial countries as well – economists in the U.S., Germany, Sweden, Russia, France, Austria and several other countries contributed to the pool of ideas. At the same time a great deal of statistical information began to be collected and analysed, particularly in the United States, and it became easier to examine a theory in the light of the facts. By around 1930, when the first real impact of the Slump was being felt by the U.S. and Western Europe, there was a fair amount of agreement about the main features of the cycle.

The most convenient place to start is at the lower turning-point of the cycle, when unemployment is at its heaviest. What starts off the recovery? There was pretty general agreement that the recovery begins with a rise in investment; in other words, with businessmen starting to build new factories, install new machinery and so on. Different economists emphasized different reasons for this rise in investment. One school of thought, for example, stressed the role of interest rates. During the down-swing, as more and more factories became idle, there became less and less reason for new investment – if existing machinery was unemployed what was the point of installing more? This meant that there was a fall in the demand for loans to finance the new investment. At the same time, it was argued, as the down-swing went on, and production fell and unemployment rose, the uncertain outlook caused people to cut their spending and save as much as they could; thus they accumulated more and more idle cash. This combination of a fall in the demand for what have been called *loanable funds*, and a rise in the supply of these funds, resulted in a fall in the rate of interest (for the same reason that a fall in the demand for, or a rise in the supply of, any other commodity tends to reduce its price). Well then, this school of thought argued, there comes a time when the rate of interest is pushed so low by the operation of these forces that it becomes profitable to borrow money, and invest it in new factories or equipment. The rate of return to be made on this new investment may not be very high, but money can be borrowed so cheaply that even a low rate of return makes the operation worthwhile.

Other economists thought it was not only the lower cost of borrowing money that stimulated new investment, but the lower cost of everything else as well. During the down-swing wages and prices always fell. This meant that at the bottom of the depression businessmen could buy or hire factors of production more cheaply than before: the price of raw mater-

ials and capital equipment would have fallen, and – more important still – wages would be a good deal lower than they had been a few years before. Other economists, again, took a more positive view about the reasons for the turn-up, arguing that new investment was stimulated not only by the lower costs of doing it, but also by the greater profitability of doing it. During the down-swing and the depression, they said, the existing stock of capital equipment gets older or more obsolete; new products and processes are invented; new markets appear; and sooner or later businessmen will start investing in order to exploit these new developments.

Whatever the differences in emphasis, there was wide agreement about the basic point: the thing that started off the recovery from a slump was a rise in investment, and one of the main factors behind the rise in investment was the fall in wages and interest rates that occurred during the down-swing.

There was also wide agreement about what happened after the recovery got under way, though again the emphasis varied. As some new investments started paying off, other businesses would be encouraged to start investing as well. These new investments would create more employment – some people would be needed to build the new factories and machinery, other people would be needed to operate them. As more people were brought into employment (i.e. as the demand for labour rose) wages and salaries would rise and so, in consequence, would the amount spent by wage- and salary-earners on consumer goods. This in turn would create an incentive to businessmen to increase their investment even more in order to meet the new demand. During the early and middle stages of the up-swing there would be no difficulty in financing this new investment. It would be financed out of the idle hoards of cash that people had accumulated during the down-swing and the slump; or out of the profits being made by the newly erected factories; or (and some economists

attached particular importance to this) out of credit advanced by the banks. For the banks make their living, after all, by lending money at a profitable rate of interest; little satisfactory business comes their way during a slump and they, like individuals, accumulate idle hoards. When the recovery brings a rise in the demand for loans, they are only too glad to make large amounts of credit available at relatively low rates of interest.

And so the up-swing gathers pace. As more money is spent on new investment, this creates more jobs and more incomes. This in turn results in more money being spent by consumers. In order to meet this higher demand for consumer goods, more raw materials are needed, more factories and equipment and components, more transport facilities, more warehouses and shops. And rising demand for labour and goods leads to rising wages and rising prices. Thus a cumulative process is set up. Sooner or later, however, this expansionary process comes to an end. The up-swing flattens out. Perhaps immediately, perhaps only after several years of stability, the economy starts to contract. Why?

The basic reason for the down-turn was thought to be that during the up-swing of the cycle the industries making *capital* goods expanded faster than the industries making *consumer* goods.* The result of this was that when full employment was reached the distribution of the nation's resources between capital goods production and consumer goods production was distorted: too much labour and capital was engaged in making steel and heavy machinery and cement, and too little in making cutlery and furniture and clothing. Production of capital goods fell, and men and machinery in these industries (unable to be quickly or easily transferred to the

* Consumer goods, as the term implies, are the final goods bought in shops by consumers – everything from hi-fi sets to hairpins. Capital goods, on the other hand, consist of the machinery and equipment bought by firms, and used in the process of production.

production of consumer goods) became idle. As men were thrown out of work, consumption fell, and as consumption fell, so did the incentive to invest. The down-turn had begun.

THE ACCELERATOR

There was a particular, and not immediately obvious, reason why the up-swing saw too big an expansion of the capital goods industries. This was called the *accelerator* principle. In essence, the principle states that a small change in the output of the kind of goods bought in the shops by consumers tends to result in a much bigger – or accelerated – change in the output of goods needed to make these consumer goods. The principle is easiest to grasp in the form of a simple example.

Suppose that a firm produces 10,000 electric coffee grinders a year, selling them for £5 each. And suppose that to produce these 10,000 coffee grinders it needs machinery worth £200,000. And suppose, finally, that each year 10 per cent of its machinery wears out, so that it buys £20,000 worth of new machinery. This is an equilibrium situation which can go on for ever, with the firm selling £50,000 worth of coffee grinders each year, and buying £20,000 worth of equipment. Now suppose that for some reason there is a 5 per cent rise in the demand for coffee grinders, and the firm finds that it can sell 10,500 coffee grinders each year. Since it takes £20 worth of machinery to produce one coffee grinder, it will have to install another £10,000 worth of machinery in order to produce these 500 extra coffee grinders. Consequently this year it will buy not its usual £20,000 worth of machinery, but £30,000 worth. In other words, a 5 per cent rise in the demand for coffee grinders has led to a 50 per cent rise in the demand for the machinery needed to make coffee grinders. In order to raise its output by 50 per cent, the firm that makes the machinery may have to increase its own capacity by 50 per cent – and this might mean, according to the accelerator

principle, that its own purchases of machinery and equipment were suddenly trebled or quadrupled. Obviously this is the extreme case – in practice the capital goods industries will have a lot of spare capacity at the beginning of the up-swing, and may in any case respond to a big rise in the demand for their products by lengthening their order books rather than increasing their capacity. Nevertheless one can see from the accelerator principle how fairly small and cautious decisions to expand output in the consumer goods industries can lead to a big expansion of the capital goods industries.

But the influence of the accelerator does not stop there. Precisely because it is responsible for the undue expansion of the capital goods industries, it is also a major factor in the down-turn. For after a while it goes into reverse: just as a small rise in the output of consumer goods may result in a much larger rise in the output of capital goods, so a small fall in the output of consumer goods may result in a much larger fall in the output of capital goods. This can be seen if we go back to our example. We saw that a 5 per cent increase in the output of coffee grinders (from 10,000 to 10,500) resulted in a 50 per cent rise in the output of coffee-grinder-making machinery. But if in the following year the output of the firm making coffee grinders falls by about 5 per cent (back to 10,000) its demand for machinery will fall from £30,000 to £10,000. For it will have £210,000 worth of machinery, but will only need £200,000 worth. Assuming that as usual £20,000 worth wears out, it will only need to buy £10,000 worth. So in this case a 5 per cent fall in the output of consumer goods has led to a fall of no less than two-thirds in the output of capital goods.

So far, for the sake of simplicity, we have been talking of the accelerated effect on the capital goods industries as being the result of an actual rise or fall in the output of consumer goods. But in fact nothing so dramatic is needed to bring the accelerator into play; it can be brought into play by a slight

variation in the *rate of change* of output of consumer goods (e.g. a slight slowing down in the rate of increase). Without going through all the arithmetic, if in our example the output of coffee grinders in the second year had continued to rise, but only by 4 per cent instead of 5 per cent, then the firm's purchases of machinery (assuming it kept its capacity in line with its output) would still have been lower than in the first year. In other words a mere slowing-down in the rate of increase of consumer goods production can result in an actual fall in the output of capital goods. As the economy rapidly approaches the full employment ceiling during the up-swing of the trade cycle the rate of increase of consumer goods production is bound to be slowed down by an increasing shortage of labour, if by nothing else. The accelerator principle shows how this slowing-down will result in an actual fall in output and employment in the capital goods industries, and thus topple the economy over into a down-swing.

This, very briefly, is how economists in the 1920s and 1930s thought the trade cycle operated. Even today most economists would not dissent from many of the basic elements of the argument. But there are two intriguing aspects of the whole affair that need to be noted.

The first is that the various explanations, ingenious and plausible as they were, of why the economy toppled over from boom to slump, or recovered again from slump to boom, were propounded against the background of a theory according to which the trade cycle could not happen in the first place. In other words, at one level theory had had to come to grips with the phenomenon of the trade cycle, because it was so obviously there. But at a deeper level, full employment was still assumed to be the natural condition of the economy. 'Trade cycles cannot happen,' the economists seemed to be saying, 'but given that they do happen, this is why.'

The second interesting feature of the theory was the

inevitability with which the cycle was assumed to operate. Given that during the up-swing the capital goods industries expanded too fast, it was taken for granted that before long the boom would come to an end and the economy would topple over into recession. It is true that some economists wanted to moderate the expansion of the capital goods industries at an early stage in the up-swing, by deliberately raising interest rates and restricting bank credit, and thus making it more difficult for businessmen to finance new investment projects. But there was a tendency to regard this as a rather visionary approach; most people took a curiously fatalistic view. Indeed one can almost detect a faint Puritan satisfaction in the acceptance that a penalty must be paid for the years of frenzied expansion – a penalty that could not be avoided (though it might sometimes be postponed) by doing clever things during the later stages of the boom. Some economists, in fact, appear to have seen the economy as a somewhat dissipated member of the human race, and to have thought of the trade cycle in terms of getting drunk and suffering the after-effects – as is suggested by the frequent use of words like 'excesses' and 'hangover'. The more boisterously one drank, the more acute and prolonged would be the eventual hangover. And human nature being what it is, there was little hope of avoiding hangovers in the future by drinking more slowly or stopping drinking sooner.

There was, however, a compensation for the inevitability of the down-turn: the up-turn was inevitable too. During the down-swing wages, prices and interest rates would fall, existing machinery would wear out, and new inventions would be made and developed. Before long investment would once again become profitable, and the stage would be set for recovery. It was inconceivable that the economy could get stuck at the bottom of the cycle as long as events were allowed to take their natural course. If by any chance it did get stuck, this could only be because some artificial restraint

had been introduced which was impeding the smooth working of the system.

Or perhaps – one can say in the light of hindsight – it would be a sign that the schizophrenia according to which the trade cycle could not happen, but did, was no longer tolerable.

STATE OF THEORY IN THE 1920S

Let us now pull together the main threads we have been following in this chapter, and summarize the theory of employment as it stood in the 1920s and early 1930s.

First, and most basically, full employment was assumed to be part of the natural order of things. This assumption derived from Say's Law. Say's Law stated that supply created its own demand – that the process of creating an article also resulted in the creation of just enough purchasing power to buy that article. Therefore there could be no general surplus of articles, or of the labour employed in making the articles. This Law had been qualified as long ago as the early nineteenth century as far as surpluses in *particular industries* were concerned. Ricardo had argued that some shift in fashion could result in a sudden fall in the demand for the products of a particular industry, thus creating unemployment and spare capacity within that industry. But by definition the shift in fashion would have resulted in a rise in the demand for the products of some other industry. Capital and labour would move from the first industry to the second, so that the unemployment originally created would disappear.

The emergence during the nineteenth century of the trade cycle, and the attempts made to account for it, can be regarded as resulting in a further qualification to Say's Law. In addition to a process (perhaps fairly continuous) of unemployment appearing in one or two industries, and then being absorbed by the expansion of other industries, one now

had the periodic and simultaneous appearance of unemployment in a large number of industries, particularly those making capital goods. So one had to agree not only (as Ricardo had done) that at any given time one or two industries might be suffering from unemployment; one also had to admit that every now and then the whole economy might suffer from it.

Nevertheless, Say's Law was still held to be valid. In principle, the economy would always absorb all the commodities it was capable of producing. The periodic unemployment associated with the trade cycle was an aberration, a consequence of the unbalanced structure of production caused by too rapid an expansion of the capital goods industries. Once this too-rapid expansion had occurred, a down-swing was inevitable. Many economists thought that all one could do was to stand back and let events take their course: as the existing (and excessive) stock of machinery and capital equipment which had been left over at the top of the boom wore out or rusted away; as falling employment led (as it always had done) to falling wages and prices; as the falling demand for loanable funds, and the rising supply of them, led to lower interest rates; and as time passed and new products and processes were invented – so, gradually, the conditions necessary for a recovery would come into being. Other economists were rather less passive than this – they felt that the down-swing phase of the cycle could be hurried up, for example by taking deliberate steps to reduce interest rates, instead of merely waiting for them to fall. But by and large there was agreement on the kind of things that had to happen before the up-swing could get under way again and full employment be restored.

Full employment, then, was accepted as the normal state of affairs. From time to time quite heavy unemployment would develop and, insofar as it could not be cured, must be endured. But such unemployment was a temporary pheno-

menon which always cured itself within a few years.

This was all very well. But what if, in fact, after the down-swing, the economy did not start to recover again; what if it simply got stuck at the bottom of the cycle, with heavy unemployment persisting year after year? How could this be accounted for?

To most economists in the 1920s and early 1930s the answer seemed obvious. Something must be happening to obstruct the adjustments which normally accompanied the down-swing of the trade cycle. These adjustments consisted, on the one side, of reductions in costs: wages, interest rates and the price of capital equipment were all supposed to fall, so that after a while it became cheaper (and therefore more profitable) to hire labour, borrow money and buy capital equipment. The other set of adjustments consisted of the emergence of new products or techniques of production which it was profitable to exploit. If, therefore, the economy refused to revive and heavy unemployment persisted, this must either be because one of the cost elements had not fallen as it should have done, or because no new products or processes were being developed which looked profitable enough to exploit. The problem was to identify the guilty factor, and then do something about it.

In the view of most economists and (though they might not have put it in quite these terms) of the overwhelming majority of the 'practical men' in business, the City and the civil service who took an interest in the matter, identification was made, with the devastating certainty of a fingerprint test, by the Law of Diminishing Returns and the Theory of Marginal Productivity. Together, these two bits of economic theory showed that the more of a factor of production that was employed, the less it would be paid. Therefore if the total available quantity of a factor of production is to be employed, each unit of the factor of production must be paid less than if only 90 per cent of it is to be employed. To be more specific, if

there is to be full employment of the labour force, the average wage will have to be lower than if there is only 90 per cent employment (i.e. 10 per cent unemployment). Therefore if there is a persistent unemployment rate of 10 per cent, average wages must be too high. The only way to get back to full employment is to have some reduction in wages.

That was the theory. But did it provide a plausible explanation of the persistent unemployment of the 1920s and the refusal of the economy to budge from the bottom of the trade cycle? Had something happened to make wages too high in the first place? Or had something happened to prevent them falling in the way they had always fallen in previous down-swings?

The answer to both questions seemed clear. On the first point, the tremendous demand for labour during and immediately after the First World War had resulted in an enormous rise in wages: in the seven years between 1913 and 1920 wage rates nearly trebled. Past up-swings of the trade cycle had, of course, seen quite substantial increases in wages, but a rise on this scale was quite unprecedented.

On the second point, too, the evidence seemed conclusive. During the War there was a great increase in the size and power of the trade unions – the same seven years that saw a near-trebling of wage rates also saw a near-trebling of the number of trade unionists affiliated to the Trades Union Congress. By the early 1920s millions of workers who twenty or thirty years before would have had to bargain with their employers as individuals or small isolated groups were now spoken for by large and powerful unions.

To orthodox economic opinion in the 1920s the case was now made out. Wages were too high, and as a result part of the available labour force could not find employment. Full employment could only be restored if wages fell. During the nineteenth and early twentieth centuries this would have happened automatically during the down-swing of the trade

cycle, and before long this would have enabled a revival to get under way. But now the unions were strong enough to resist wage reductions. Until they were persuaded, or forced, to see the error of their ways heavy unemployment would continue.

Economics is not an exact science: controlled experiments cannot be conducted on its subject matter, and there is plenty of room for disagreement among economists on how the economy works, or what cause will produce what effect. At any particular time, there are likely to be those who doubt or dissent from some aspects of the orthodox theory accepted and taught by the great majority of the profession. It would therefore be wrong to suggest that all British or Western economists in the 1920s and early 1930s necessarily adopted the theoretical approach outlined above, or favoured the policies which the theory seemed to call for. Several economists, in addition to Keynes himself, were uneasy about the state of the existing theory, and quite a number refused to advocate the policy measures – such as wage cuts – which the theory required.

Nevertheless, whatever the doubts and reservations of some economists, it was the theory outlined above which dominated economic thinking in the 1920s and early 1930s: this was the theory that was taught in the universities; this was the theory students got from their textbooks; this, above all, was the theory which underlay the basic approach to economic problems of all those in politics, the civil service, business and finance who were not themselves economists, but were daily making or influencing economic decisions. It was, in short, the conventional wisdom.

Let us now take a brief look at the 1920s and early 1930s in the light of this conventional wisdom.

KEYNESIAN ECONOMICS

A Symposium

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JOHN GOLLAN ... A. K. DAS GUPTA
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Edited by V. B. Singh

1956
PEOPLE'S PUBLISHING HOUSE LTD.
DELHI

Chapter IX

THE PLACE OF KEYNES IN THE HISTORY OF ECONOMIC THOUGHT

Ronald L. Meek

FOR about a decade after the publication of Keynes's *General Theory* in 1936 it was widely believed that Keynes had succeeded not only in bringing academic economics back into contact with reality, but also in shifting it towards the left. The new doctrines came to be associated with Roosevelt's New Deal in America, with Popular Front programmes and policies, and, after the war, with the economic proposals of the British Labour Government, Keynes seemed to have taken over the job of "replacing Marx" which Ford had resigned in 1929. It did not seem to matter that Keynes himself had insisted that his theory was "moderately conservative in its implications". The "Left Keynesians" were convinced that he had presented them with the blueprint of a realisable utopia.

In 1950, however, the political atmosphere is much less favourable to the growth of "Left Keynesian" notions than it was in 1936, and it is to the right rather than to the left that Keynesian doctrines have now come to appeal. Certain elements of Keynesian theory are in fact being used today as important weapons of war. In the United States, for example, Keynesian doctrines are often employed to provide an *economic* justification for the enormous expenditure on armaments —it helps to bolster up an "effective demand" which might otherwise be deficient. And in Britain, too, very many sincere supporters of the Government acquiesce in its war preparations only because they have been led to believe that capitalism

can be and is being made to "work" in this country, and that it is both unnecessary and dangerous for the labour movement to look for allies any further to the left. It would hardly have been possible for this view to gain such wide acceptance—or for Herbert Morrison to crystallise it in his new definition of "socialism"—without the backing of Keynesian economic theories. Whatever Keynes himself may have intended in 1936, his doctrines are today much more useful to the forces making for war than to those making for peace.

The so-called "Keynesian Revolution" is in fact being revealed as a 1688 of economic theory, rather than the 1640 which many people hoped it would turn out to be. In academic circles, too, this is gradually being appreciated. It is coming to be realised that the framework of orthodox economic theory has stood up remarkably well to the Keynesian assault, and that nothing is easier than to combine an acceptance of Keynesian doctrine with an earnest attachment to the apologetic ideas associated with the concept of "consumers' sovereignty". The time is ripe for a serious revaluation of Keynes's contribution. One way of making this revaluation is to examine the policies for full employment which have been founded on the ideas of the *General Theory*: this task was admirably carried out by Maurice Dobb in the Spring, 1950, issue of *The Modern Quarterly*. Another way is to determine the place of Keynes in the history of economic thought: this task is attempted in the present article.

I

Keynes's own assessment of his relationship with previous schools of economic thought is obscured by the new definition of "Classical economics" with which the *General Theory* begins. Keynes notes that "The Classical economists was a name invented by Marx to cover Ricardo and James Mill and their *predecessors*, that is to say for the founders of the theory which culminated in the Ricardian economics".[1] This statement is not sufficiently precise: Marx dated the "Classical school of political economy" from William Petty to Ricardo in England and from Boisguillebert to Sismondi in France.[2] Nor is it complete: Marx was careful to define not only the boundaries of

[1] *General Theory*, p. 3, footnote.
[2] *Critique of Political Economy* (Kerr edition) p. 56.

the Classical school but also its essential characteristic—that it "investigated the real relations of production in bourgeois society," in contradistinction to what Marx called "vulgar economy", which "deals with appearances only".[3] Keynes rejects Marx's definition, saying: "I have become accustomed, perhaps perpetrating a solecism, to include in 'the Classical school' the *followers* of Ricardo, those, that is to say, who adopted and perfected the theory of the Ricardian economics, including (for example) J. S. Mill, Marshall, Edgeworth and Professor Pigou".[4]

For pedagogical purposes, Keynes's new definition was no doubt admirable. It immediately focussed attention on what Keynes believed to be his most distinctive contribution to economic thought—his rejection of Say's Law, the doctrine that supply necessarily creates its own demand. All economists prior to Keynes who had accepted Say's Law were lumped together as "Classical economists". Ricardo and Professor Pigou—strange bed-fellows, one might have thought—were equally branded as reactionaries because each of them had believed in the truth of Say's Law. But while this definition was certainly suggestive, it also succeeded in obscuring the *basic* difference between the Classical school as Marx defined it and the economists who followed Ricardo—that the latter were no longer primarily concerned to elucidate "the *real* interrelations of bourgeois production".

Marx's characterisation of Classical political economy brings out clearly three of its most prominent features. In the first place, the Classical economists were concerned primarily with the analysis of bourgeois *production*. This does not mean, of course, that they were not also concerned with many of the questions which are usually considered under the headings "exchange" and "distribution" in modern textbooks. Obviously such questions occupied much of their attention. What it means is simply that they attempted to explain the phenomena of exchange and distribution *in terms of* the conditions of production, as distinct from those later economists who considered them *in abstraction from* the conditions of production. It was quite natural that they should lay this emphasis on the process of production. The earlier

[3] *Capital*, Vol. I, ch. I., sect. 4, footnote.
[4] *General Theory*, loc cit.

Classical economists were interested above all in demonstrating to the statesmen of the time that the real national income of the country could be greatly increased by the accumulation of capital and the widespread employment of capitalist methods of production. To demonstrate this it was necessary for them to begin by making an analysis of the process of production itself—an analysis which would make clear not only how wealth was produced but also how it was increased. Once the nature and scope of the investigation had been thus defined, a number of important questions immediately suggested themselves for discussion. For example, what was the *source* of capital? Capital can only be accumulated, it was answered, when men working together are able to produce more than it is necessary for them to consume in order to keep going. The social surplus—net product, spare revenue or net revenue as it was variously called—is the only possible source of funds for accumulation. What forms, then, did this surplus assume? The French Physiocrats believed that it took the form of land rent and land rent alone. Smith and Ricardo, on the other hand, believed that profit as well as rent was an income in the nature of a surplus. Then again, who *produced* this surplus? Could a useful distinction be drawn in this connection between, say, an agricultural labourer and a soldier? What principles should be employed to divide "productive"—i.e., surplus-producing—labour from "unproductive" labour? The earlier Classical debates were predominantly concerned with questions of this type, and throughout the Classical period problems of value and distribution continued to be discussed in terms of the conditions of production. After Ricardo, however, this emphasis on production became weaker, and an entirely new approach to economic phenomena began to be developed—an approach which eventually made it appear absurd even to *ask* many of the questions which the Classical economists had considered of vital importance.

In the second place, the Classical economists were concerned with the analysis of *bourgeois* production. Even the first French Physiocrats, living under the *ancien regime* in the middle of the eighteenth century, looked forward to the day when the universal application of capitalist methods to agriculture would have changed the whole face of the country. Adam Smith's *Wealth of Nations* was one of the major influences in clearing away the obstructions which at that

time still hindered the advance of the individual capitalist. And Marx said of Ricardo that "the 'parallelograms of Mr. Owen seem to be the only form of society outside of the bourgeois form with which he was acquainted".[5] This concentration upon the political economy of one particular form of social organisation was a source both of strength and of weakness. Of strength, because it meant that the Classical economists were not misled into trying to frame economic principles which would be valid for all types of society—a game which modern economists have become excessively fond of playing. Of weakness, because it meant that when they came to work out what Marx called "the law of motion" of capitalist society, they could only envisage changes taking place within the capitalist structure, and were quite unable to imagine the old society being capable of giving birth to a new.

In the third place, and most important, the Classical economists were concerned with the analysis of the *real* interrelations of bourgeois production. Generally speaking, the Classical economist always *began* with the fact that under capitalism there existed certain definite social classes, which were related to one another in different ways in the process of production. They began with this fact because they assumed, whether consciously or unconsciously, that these social relationships between men and men in the process of production were the major determinants of those value relationships upon which the pattern and movement of the whole system primarily depended. Political economy, they believed, must start from these productive relationships and on no account abstract from them. This attitude did not become really explicit until Marx, but there is no reason to doubt that most of the Classical economists intuitively adopted it. In particular Ricardo, whose genius and scientific honesty Marx again and again acknowledged, brought it to the forefront with his insistence on the economic significance of the social conflict between landowner and capitalist and (at least in relation to the introduction of machinery) between capitalist and worker. The attitude tended to be generalised in the labour theory of value, a peculiarly Classical product. The labour theory of value, as a number of critics have remarked, is in essence simply another way of stating that the relations between men

[5] *Critique of Political Economy*, pp. 69-70

and men in the field of production ultimately determine their relations in the field of exchange.

Marx inherited this attitude, made it explicit, and developed and applied it in an extraordinarily fruitful manner. But in bourgeois economic thought it virtually perished with Ricardo. Post-Ricardian economists, quick to appreciate in the decade following Ricardo's death in 1823 that it was becoming politically dangerous to *begin* with the social relationships between producers, started to assume that it was permissible to *abstract* from these relationships. The gradual descent towards modern neo-Classical orthodoxy began. The descent was marked in particular by the emergence of a subjective theory of value (based on an analysis of the desires of consumers) in place of the objective labour theory of Ricardo, and, eventually, by a theory of distribution which abstracted completely from the *real* distinctions between social classes, lumping them all together as the owners of certain "factors of production" which were distinguishable only by reason of the difficulty of substituting one for another. For this reason, as Marx put it, post-Ricardian political economy on the whole "failed to penetrate through the outward disguise into the internal essence and the inner form of the capitalist process of production." In particular, certain social and economic contradictions which seemed to Marx (and, to a lesser extent, to Ricardo) to lie at the very centre of the system and in large measure to determine its "law of motion", were successfully obscured.

Keynes's new definition of "Classical" political economy, then, completely glosses over these vital differences between Classical and post-Ricardian thought. Yet these are the very distinctions which must be emphasised if we are to determine the place of Keynes himself in the history of economic doctrine. For it was precisely because Keynes did not appreciate their significance that he succeeded to such a limited extent in escaping from the inhibiting assumptions of modern orthodoxy, notwithstanding his sincere attempt to do so. Not understanding the real reason why post-Ricardian economics had lost touch with reality, Keynes was quite unable to bring it back. Keynes critically examined the map of the territory which had been prepared by the orthodox economists, and discovered certain important topographical errors in it But he never penetrated deep enough below the surface to establish contact

with those profound subterranean forces which are still shaping the earth and moulding its contours.

II

To Keynes it seemed important to stress, not the differences between Classical and post-Ricardian thought, but one particular feature which they both allegedly had in common—the acceptance of Say's Law. The ideas of the *General Theory* were worked out during the Great Depression, and at such a time Say's Law—which implied the impossibility of general depression—naturally appeared as the villain of the piece. Keynes's attack on Say's Law, however, while it came as a healthy shock to bourgeois economists (though hardly to Marxists), was far too undiscriminating. To link Ricardo and Pigou together as reactionaries because they both accepted Say's Law is to obscure a very important difference between the role which Say's Law played in the Ricardian system on the one hand and in the neo-Classical system on the other. In Ricardo's system, broadly speaking, Say's Law played a progressive role. It was a very effective answer to those representatives of the landlords and other "unproductive consumers" (Spence, Chalmers and Malthus, for example) who were arguing that capital accumulation might proceed too fast and cause a "general glut" of commodities. This argument, in the first two decades of the nineteenth century, obviously had reactionary connotations. Not only this, but Say's Law was hardly "fundamental to the Ricardian economics", as Keynes assumed it to have been.[6] It was, I think, rather something superimposed upon the basic theoretical frame-work for political reasons than an essential element of that frame-work. Certainly Marx found little difficulty in rejecting Say's Law categorically while at the same time accepting a great part of Ricardo's structure as a basis on which to build.

In post-Ricardian bourgeois economics, on the other hand, Say's Law assumed a reactionary role and also became rather more firmly welded into the theoretical structure. In Ricardo's system, Say's Law had been used as a weapon against the forces which were trying to *hold back* economic advance. In the post-Ricardian systems, Say's Law gradually came to be used

[6] *General Theory*, p. 32.

as a weapon against the forces *promoting* economic advance. A doctrine which implied that general overproduction was impossible under capitalism was obviously a useful theoretical weapon against the growing working class movement. It diverted attention from the basic contradictions of capitalism, and enabled economists to "explain" the periodical crises of capitalism (which began to manifest themselves unmistakably soon after Ricardo's death) either in terms of phenomena occurring as it were outside the system (climatic conditions, psychological factors, etc.) or in terms of "rigidities"—notably, in our own times, the foolish refusal of the workers to accept a reduced wage equal to the value of their "marginal product" during a slump. Keynes himself realised fairly clearly the nature of the appeal which Say's Law possessed for a capitalist class on the defensive against the socialist challenge. "That it (Say's Law) could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress," he wrote, "and the attempt to change such things as likely on the whole to do more harm than good, commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social forces behind authority".[7]

This is true so far as it goes. But Keynes's treatment tends to be misleading as it stands, first because he makes no distinction between the role played by Say's Law in Ricardian and in post-Ricardian theory, and secondly because he does not seem to appreciate that the acceptance of Say's Law by post-Ricardian economists was only one facet of the basic reason for their failure to solve the mystery of the nature of capitalist crisis. That failure, in the last analysis, was due to the fact that orthodox economic theory now abstracted from the social relationships between producers—a habit which made the incorporation of Say's Law into the general body of theory both possible and inevitable. Ricardo, in spite of his acceptance of Say's Law, was far closer to reality than the majority of neo-Classical economists. It is impossible to cure modern economic thought of its malady simply by rejecting Say's Law. You do not rid a patient of boils by lancing one of them, even if it be the biggest and most painful.

[7] *Ibid.*, p. 33.

III

It is sometimes argued that the *General Theory* represented a swing backwards from neo-Classicism towards Classicism because Keynes, like Smith and Ricardo, was primarily interested in *movements* in real income. Modern economic theory, it is said, had become obsessed with the problem of allocating a *given* income in the most "rational" or "economic" manner, and the equally important question of the factors determining the size of income had been neglected. Because Keynes concerned himself with the latter problem, it is concluded, his system is essentially "Classical" in its aim and outlook.

There is an important element of truth in this argument, although the conclusion properly to be drawn from it is different from that which is usually drawn. The Classical problem, as we have already noted, *was* how to secure abundance—i.e., how to maximise the rate of increase of the real national income. The typical neo-Classical problem, on the other hand, *is* how to make the best of scarcity—i.e., how to allocate in the most desirable manner a set of scarce resources assumed (even if only provisionally) to be fixed. The modern "marginal" techniques are useful (in so far as they are useful at all) only in connection with the latter problem, and have very little relevance to the Classical problem.[8] Keynes's concern with the factors determining the volume of output therefore appeared to academic economists as something of a novelty, and it was only natural that critics should detect an analogy in this respect between Keynes and the Classical economists.

Not only did Keynes's work revive interest in the problem of the factors determining the volume of output, but it also contributed to the rehabilitation of one essentially Classical concept which had been discarded soon after Ricardo's death. In Ricardo's system, this concept had taken the form of an assumption that accumulation could most usefully be considered as a function of the social surplus, and in particular of that part of the surplus which consisted of profits. Ricardo, in other words, fairly consistently treated the volume

[8] It can hardly have been an accident that the marginal techniques were largely developed and popularised during a decade in which it was widely believed that the rate of economic growth had at last been checked

of accumulation as being determined, not by the *rate of reward* for accumulation, but by the *ability* to accumulate. This assumption appeared quite a natural one to an economist like Ricardo, who always treated the capitalists' desire to increase their power through the accumulation of capital as one of the most powerful driving-forces of the economic system. After Ricardo's death, however, the drift towards apologetics in bourgeois economic thought swiftly gathered momentum and it was not long before Ricardo's assumption gave way to a much less realistic one. Once the working classes had begun to read books on political economy and to listen to people like Hodgskin at Mechanics' Institutes, it became politically advisable to deny that profit was the result of something which the labourer did, and to assert that it was actually the result of something which either the capitalist or his capital did. The line of least resistance seemed to lie in linking interest and profit to some form of "sacrifice" on the part of the supplier of capital—the "abstinence" allegedly involved in the act of saving for example—a sacrifice which was necessarily assumed to vary proportionately with the amount of reward received. The volume of saving thus begun to be conceived as a function not of the amount of disposal income but of the rate of interest or profit. From here it was only a short step to the theory that saving and investment were automatically kept equal to one another per medium of variations in the rate of interest—a theory which for several generations did good service in protecting Say's Law from the attacks made upon it by radical critics.

It was this theory which was the main target for Keynes's critique. Saving and investment, Keynes argued, determine not the rate of interest (which is independently determined) but the aggregate volume of output and employment, and saving must be treated as a function, not of the rate of interest, but of the *ability* to save, i.e., of income. It appears at first sight, then, as if Keynes had not only brought the Classical economic problem once again to the forefront, but had also himself adopted one of the most important tools which the Classical economists had used to deal with that problem.

But this is surely one of those cases where the differences are far more important than the resemblances. Keynes's interest certainly lay in investigating the causes of movements in income, but they were movements of a type very different

from those with which Ricardo was concerned. Ricardo examined the forces which produced an increase in income over the long period; Keynes examined the forces which produced fluctuations in income in the short period. Their aims were different, and, notwithstanding certain superficial resemblances, their techniques were different. It is true that Keynes, like Ricardo, made use of the idea that saving should be treated as a function of income. But *whose* income? Ricardo always regarded accumulation as being in the main the province of a *particular social class*—the capitalists. The labourers did not usually have the power to accumulate, and landlords, although they had the power, did not usually have the will. In Keynes's system, on the other hand, saving appears as a function of the *aggregate* income of the community as a whole, and those class differences which Ricardo tended to regard as his starting-point are almost completely abstracted from. The size of the gulf between Classical political economy and Keynesian economics will be more clearly appreciated when we come presently to deal with the relationship between Keynes and Marx, but in the present connection one more essential difference may be stressed. Whereas Classical political economy was a complete theoretical system, Keynes's *General Theory* is "general" in a much more limited sense. Keynes himself made this abundantly clear. "If our central controls succeed in establishing an aggregate volume of output corresponding to full employment as nearly as is practicable," he wrote, "the classical theory comes into its own from this point onwards. If we suppose the volume of output to be given, i.e., to be determined by forces outside the classical scheme of thought, then there is no objection to be raised against the classical analysis of the manner in which private self-interest will determine what in particular is produced, in what proportions the factors of production will be combined to produce it, and how the value of the final product will be distributed between them."[9] Keynesian doctrine, in other words, is intended not as a substitute for modern economic theory but rather as a supplement to it. Simply apply the Keynesian remedies, and the main body of orthodox theory—including the concept of "consumers' sovereignty",

[9] *General Theory*, pp. 378-9. Keynes is here using the word "classical" in the peculiar sense which I have discussed above.

the marginal utility theory of value and the marginal productivity theory of distribution—"comes into its own again from this point onwards". Keynes, in his search for a way out of the impasse which modern economics has reached, may have intuitively looked in the direction of Classical political economy. But he did not himself travel very far along the road towards it.

IV

Marx inherited much of the Classical outlook and theoretical structure, and there is no doubt an important sense in which the description of him as "the last of the Classical economists" is justified. But his contribution was much greater, and much more individual, than this description would imply. His aim was to liberate Classical political economy from its bourgeois prison, an aim which two epoch-making discoveries enabled him to achieve. The first of these discoveries related to the question of the origin and persistence of profit under conditions of competition. Marx was the first economist to understand that this problem could be solved only when capitalism was viewed, not as an eternal form of economic organisation (as the Classical economists had tended to regard it), but as a particular type of *class* system which had had a beginning in history and would have an end. The second discovery related to the question of the causes of the trade cycle. Marx was the first economist to reveal the nature of the connection between cyclical fluctuations and the deep-rooted social and economic contradictions involved in the capitalist mode of production.

How then does Keynes stand in relation to Marx? The publication of the *General Theory* gave rise to a considerable number of speculations on this subject, many of them of rather doubtful value. All too often commentators attached great significance to superficial resemblances which in fact indicated nothing except that two great economists had both concerned themselves with the problem of the trade cycle. And all too often they tended to assume that the main differences between Marx and Keynes were political rather than economic—that the only real question at issue was the political practicability of the Keynesian remedies.

It is easy enough to draw parallels of a sort between

Capital and the *General Theory*. In particular, Marx's famous reproduction schemes have proved a happy hunting ground for those seeking to "reconcile" Marx and Keynes. Does not Marx's division of the economy into two great departments, one producing consumers' goods and the other investment goods, prove that Marx, like Keynes (and like almost everyone else for that matter), appreciated the great importance of the relation between the two? And it is not difficult to reformulate certain passages in Marx's discussion of the conditions of equilibrium under simple and expanded reproduction in terms of "the transformation of savings into investment". Some parallels, of course, are of more significance. For example, there is a certain similarity between the explanations given by Marx and Keynes of the forces determining the *periodicity* of the trade cycle, and between their respective accounts of speculation; and Marx would have sympathised with such statements as the following from the *General Theory:* "Each time we secure to-day's equilibrium by increased investment we are aggravating the difficulty of securing equilibrium tomorrow".[10] But most of the parallels usually drawn are hardly profound.

The most important point of contact between the two economists actually lies in their mutual realisation that *fluctuations in investment* are the key to the understanding of the cycle. And the most important difference between them is expressed in the divergent explanations which they provide of the forces lying behind these fluctuations. Here the rate of profit is obviously the crucial factor. Although it is true that *in the long run* a fall in the rate of profit may not cause a decline in the rate of investment (since the capitalists will probably become reconciled, as Keynes put it, to "playing the game for lower stakes"[11]), movements in the rate of profit undoubtedly affect the *timing* of investment in the short period. Capitalists expect to have their capital returned to them plus the "normal" rate of profit, and if profit prospects suddenly become less bright they may well decide to delay the putting into effect of planned investment projects until the situation becomes clearer. This sudden decline in the rate of investment may easily precipitate a crisis, and depressive repercussions may spread throughout the whole economy.

[10] *General Theory*, p. 105.

[11] *Ibid.*, p. 374.

Keynes's treatment of the factor determining movements in the rate of profit was conducted almost exclusively in terms of fluctuations in effective demand,[12] and his followers, particularly the "Left Keynesians," have concentrated upon this aspect of the question. Mrs. Robinson, for example, in her *Essay on Marxian Economics,* asserts that if we wish to solve the problem of the inducement to invest, "it is necessary to show that investment depends upon the rate of profit, and that the rate of profit depends, *in the last resort,* upon consuming power. It is necessary, in short, to supply a theory of the rate of profit based on the principle of effective demand".[13]

Marx was far from denying that fluctuations in effective demand, per medium of their effect on the rate of profit, play an important part in the causation of the crisis. But to relate the rate of profit *solely* to the level of effective demand, he would have said, is to ignore a large part of the problem. It is necessary to distinguish here between the short period and the long period. To say that the rate of profit in the long period is determined by the relation between supply and effective demand is (as Ricardo also realised) to say nothing at all. The long period changes which take place in the rate of profit are the resultant of a conflict of tendencies in two spheres—first, in the sphere of technological change, where an increase in accumulation is generally associated with an increase in the organic composition of capital, and, secondly, in the sphere of the relations between the two main social classes, where an increase in accumulation is generally accompanied by attempts on the part of the capitalists to raise the rate of exploitation. Marx would probably have regarded Keynes's neglect of these factors, and his concentration upon effective demand, as an illustrative example of the failure of post-Ricardian economists to penetrate to the *real* interrelations of bourgeois production.

Keynes might have interjected at this stage that he was interested in the short period, and not in the long period, since

[12] Keynes was interested mainly in the *expected* rate of profit, of which the *actual* rate of profit was regarded as only one of the determinants. He was always inclined to attribute an *independent* causative influence to such factors as "business confidence" and "disillusion".

[13] P. 50 (my emphasis).

"in the long run we are all dead". Marx's treatment of the long period tendency of the rate of profit to fall is conducted in terms of *values,* not of prices, and during the short period covered by the boom and the slump prices generally diverge considerably from values. Even if the rate of profit in terms of *values* declines during the boom, and this decline is somehow revealed when the crisis occurs and prices sink to the level of values, this fact is of little relevance to the question of the short period inducement to invest. The inducement to invest depends upon a comparison between the profits which are expected in the immediate future and the profits which have actually been realised in the *immediate* past. To explain the failure of the inducement to invest, then, we must analyse the causes of fluctuations in effective demand.

Marx would not have disagreed with this line of argument: in fact, it was precisely because he did agree with it that he introduced his own analysis of the failure of effective demand to increase proportionately with productivity during the period of the boom. But he would have criticised Keynes's account on two broad grounds. In the first place, it is impossible to make an arbitrary distinction between the long period and the short period, and to put forward one set of factors as the cause of the long period fall in the rate of profit (in terms of values) and another entirely separate set as the cause of that short period fall (in terms of prices) which precipitates the crisis. The factors whose ceaseless conflict and interaction cause these two different phenomena are intimately linked together. The *basic* contradiction of the capitalist mode of production—which in a sense gives birth to all the other contradictions—is essentially a contradiction between tendency and aim. The *tendency* of the capitalist mode of production is "to develop the productive forces absolutely, regardless of value and of the surplus-value contained in it and regardless of the social conditions under which capitalist production takes place". The immediate aim of the capitalist mode of production, on the other hand, is not the production of consumption goods (as Keynes, in common with most other modern economists, seems to have assumed) but "the preservation of the value of the existing capital and its self-expansion to the highest limit". The aim and tendency are in continuous conflict. The capitalists endeavour to step up accumulation and productivity, in order to increase

their profit and the value of their capital. But the technological changes associated with accumulation increase the organic composition of capital, and therefore, unless their effect is offset, cause a long term fall in the rate of profit. Continued accumulation, again, increases the mass of capital goods, but at the same time brings about a continuous depreciation of the existing capital. And the struggle of the capitalist to increase his rate of profit and his rate of accumulation implies a restriction of consumption, both on his own part and on the part of the workers whom he employs. "These different influences," Marx writes, "make themselves felt, now more side by side in space, now more successively in time. Periodically the conflict of antagonistic agencies seeks vent in crises."[14] Marx would have criticised any attempt to explain the trade cycle which did not start from an analysis of all these fundamental contradictions of capitalism. In particular, he would have criticised Keynes for deliberately assuming that the technique of production, size of plant, etc., remained unchanged. As Schumpeter has said, in Keynes's system "all the phenomena incident to the creation and change in the industrial apparatus, that is to say, the phenomena that dominate the capitalist processes, are excluded from consideration".[15]

In the second place, Marx would have attacked a different though related aspect of Keynes's account of the causes of fluctuations in effective demand in the short period. It is true that "the last cause of all real crises" is the failure of consuming power to keep pace with productive power. But one cannot adequately explain this failure in terms of allegedly independent psychological "propensities" and a concept of *aggregate* demand. An explanation in these terms necessarily abstracts from the social relation between worker and capitalist (which Marx, in common with the Classical economists, regarded as the essential starting-point), and tends to assume that the phenomena occurring in the field of exchange can safely be treated as independent of the relations of production. Keynes, like the neo-Classical economists, tends to treat the relationships between producers as irrelevant to economic enquiry. Marx, on the other hand, treats them as primary, and his

[14] Quotations in this paragraph from *Capital*, Vol. III, p. 292.

[15] *In The New Economics* (ed. S. E. Harris), p. 93.

explanation of the tendency of effective demand to lag behind productivity is accordingly much more profound. For example:

"The conditions of direct exploitation and those of the realisation of surplus-value are not identical. They are separated logically as well as by time and space. The first are only limited by the productive power of society, the last by the proportional relations of the various lines of production and by the consuming power of society. This last-named power is not determined either by the absolute productive power nor by the absolute consuming power, but by the consuming power based on antagonistic conditions of distribution, which reduces the consumption of the great mass of the population to a variable minimum within more or less narrow limits. The consuming power is furthermore restricted by the tendency to accumulate, the greed for an expansion of capital and a production of surplus-value on an enlarged scale. This is a law of capitalist production imposed by incessant revolutions in the methods of production themselves, the resulting depreciation of existing capital, the general competitive struggle and the necessity of improving the product and expanding the scale of production, for the sake of self-preservation and on penalty of failure....to the extent that the productive power develops, it finds itself at variance with the narrow basis on which the condition of consumption rest".[16]

The whole difference between the approaches of Marx and Keynes is summed up in this remarkable passage. Marx agrees with Keynes in rejecting Say's Law and in ascribing considerable importance to discrepancies between productive power and consuming power, but that is about all. Marx explicitly repudiates the "aggregate" approach; he deals in terms of the *propensity to accumulate* (which he relates directly to the historically-conditioned mode of production) rather than in terms of the propensity to consume; he links the theory of under-consumption with the theory of capitalist exploitation; and he clearly regards the tendency towards under-consumption as the expression of a fundamental contradiction, stemming from the very nature of capitalism and therefore ineradicable so long as capitalism survives.

The difference between Marx and Keynes, in short,

[16] *Capital*, Vol. III, pp. 286-7.

consists essentially in this—that Marx explains crises in terms of the contradictions inherent in the capitalist mode of production, whereas Keynes treats the mode of production simply as a "given" factor. If the "social structure", the "existing technique", the "degree of competition", etc., are taken as given, Keynes argues, then the "independent" variables (the propensity to consume, the marginal efficiency of capital and the rate of interest) will determine the "dependent" variables (the volume of employment and the national income). Keynes recognises, of course, that the factors "taken as given" do in fact influence the "independent" variables. But he asserts that they "do not completely determine them", and proceeds on the assumption that the nature of their influence, except in special cases does not need to be investigated.[17] To Marx, on the other hand, it seemed obvious that it was precisely this field of inquiry which was the crucial one. Keynes, ranging himself (in this respect at least) with the neo-Classical economists against the Classical economists and Marx, endeavoured to explain crises *while abstracting from the conditions of production*. If this approach is rejected, as it surely must be, many of Keynes's most influential conclusions—notably his idea that the trade cycle is merely an excrescence on the body of capitalism which can be removed by appropriate State action —immediately fall to the ground.

V

The question of Keynes's place in the history of economic thought, it should now be clear, is dependent on the answer to another question: How far did Keynes succeed in escaping from neo-Classical dogma? How far, that is to say, did he succeed in revolutionising neo-Classical economics and in bringing it back into contact with reality?

There is no doubt that this is exactly what Keynes intended to do. In the preface to the *General Theory* he said that the composition of the book had been for him "a long struggle of escape", and he emphasised that the difficulties lay "not in the new ideas, but in escaping from the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds".[18] Neo-Classical orthodoxy had become

[17] *General Theory*, pp. 245-6
[18] *Ibid.*, p. viii

an apologetic system, extremely remote from a world in which excess capacity and large-scale unemployment were not occasional deviations from a norm, but the norm itself. Keynes's mission, as he himself conceived it, was to isolate and question the basic assumptions of the orthodox system, and to rescue economics from the dead end it seemed to have reached by bringing it back again into contact with the real world.

Others besides Keynes became dissatisfied with this elegant edifice of apologetics during the days of the Great Depression. Many academic economists began to realise that elegance was less important than earthiness. But *how*, exactly—at what point and for what reason—had economic theory lost touch with the earth? The explanation given above —that economists had become content to abstract from the conditions of production and had therefore failed to penetrate through to "the inner form of capitalist production"—occurred to very few of them. Their whole upbringing made them revolt instinctively against any suggestion that modern economic theory should start, as Classical political economy had started, from the social relationships between producers. They were therefore quite unable to see that neo-Classical economics had lost touch with the earth, not simply because certain individual assumptions such as perfect competition and Say's Law no longer corresponded with reality, but because its *whole approach* to the analysis of the economic system obscured the most important elements determining the shape and movement of that system. Instead of rejecting the outlook and approach of neo-Classical economics as a whole, they tried to reform it by rejecting these individual assumptions, meanwhile retaining all the rest of the structure more or less intact. The two major developments in bourgeois economic thought in the last 20 years—the theory of imperfect competition and the Keynesian doctrine—both represent attempts at reform of this type. Their positive features arise from the fact that the assumptions which they rejected *did* require to be discarded if economics was to make any progress at all. Their limitations arise from the fact that they leave intact most of the major premises, both written and unwritten, of the neo-Classical system.

To sum up, then, we can say that Keynes's attempt to emancipate economics from neo-Classical ways of thought was

only partially successful, because the real reason for the divorce of modern economic thought from reality lies much deeper than Keynes suspected. Ten years ago, it appeared as if future historians might see in Keynes a great liberator, the initiator of a profound change for the better in economic theory, the man who first pointed to the direction in which the truth was to be found. Today it rather appears as if they may regard him as an outstanding bourgeois thinker who, precisely because he was a *bourgeois* thinker, succeeded only in substituting a new collection of illusions for an older collection which had become a little shop-soiled. However this may be, one thing is certain. The controversy over the place of Keynes in the history of economic thought will not be finally settled in the study and the lecture room. The issues at stake will be fought out, as part of a broader struggle, in a much less comfortable environment.

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